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# Fruit, Shade and Ornamental Trees



*DELICIOUS - The Grandest Fancy Apple yet Produced*

## Milton Nursery Co.

ESTABLISHED  
1878

A. MILLER & SONS  
INCORPORATORS

INCORPORATED  
1908

Milton, Oregon



A Fine Base Planting of Shrubs.

## Please Read

1.—We begin shipping in the Fall, about the 20th of October, continuing until freezing weather, and usually in the Spring from March 1st to the middle of April.

2.—Orders should be sent in as early as possible, that there may be plenty of time for shipping long distances when necessary.

3.—Buyers ordering by letter should write out their order plainly. This will prevent mistakes in the hurry of the packing season. Also, write your name, postoffice, state and county as plain as possible.

4.—Give plain and specific directions. When none are given we forward according to our best judgment, but in no case do we assume any responsibility after the delivery of the stock in good condition to the forwarder.

5.—Those who are not acquainted with the merits of the different varieties will do well to leave the selection to us, stating if wanted for family or market use, and giving the proportion of Summer, Fall, and Winter, as we shall send only such as give general satisfaction, and our long experience enables us to select varieties adapted to the locality. The description of the various kinds of fruits, etc., in this catalog is, in the main, correct, but sometimes altitude, soil, and climatic conditions and cultivation influence the quality, color, size and season to a noticeable degree, so much so that customers

may doubt the genuineness of certain varieties of fruit. Before condemning anything as untrue to name always allow the foregoing to have proper weight.

6.—We take great care to have our trees true to name, cutting all our scions and buds from bearing trees ourselves, and not trusting it to our hired men, but if any should prove untrue we will replace the same or refund the money. It is, however, understood between the purchaser and ourselves that in no case will we be held liable for a greater sum than the original price paid for the trees that prove untrue.

7.—All the trees and plants are carefully labeled and securely packed in the best possible manner, at catalog prices, and delivered to carriers, for which no extra charge is made for cartage. Prices are f. o. b. Milton, Oregon.

8.—Orders must be accompanied with the cash or satisfactory reference.

9.—Remittances may be made by bank draft, express checks, postal orders or registered letters.

10.—Our customers are requested to notify us immediately if any errors occur in filling their orders, so that we may at once correct them, as we desire to conduct our business in all respects satisfactory to those who favor us with their confidence.

**SPECIAL NOTICE.**—Those only who can show a contract issued during the current year, with our seal and signature attached, are authorized to solicit orders for us. We wish to call special attention to this notice, as unprincipled persons are known to have taken orders in our name, and filled them with inferior stock secured from other sources. Patrons will confer a favor on us by promptly reporting the name of any person who they believe is not a duly appointed agent of this company.

Address all communications to the Company. Inquiries relative to stock and prices will be promptly answered and any information or advice that we are able to impart will be gladly given. No business transacted on Saturday.

Address,

MILTON NURSERY COMPANY,  
Milton, Oregon.

# INTRODUCTION

We take great pleasure in presenting herewith our forty-third annual catalog, with revised and complete descriptions. The simple and systematic arrangement which has been adopted, combined with a complete index, renders the publication very convenient for reference.

OVER FORTY-THREE YEARS AGO A. Miller, the present president of the Milton Nursery Co., started the Milton Nursery, in what is known as "The Garden Spot" of the Walla Walla Valley, just in the edge of the beautiful town of Milton, Umatilla county, Oregon, and one-fourth mile east of the depot, on the main line of the O. W. R. & N. Railroad between Spokane and Pendleton; also one-fourth mile east of the depot on the Walla Walla Valley Traction Company road. From a small beginning, it grew steadily, under his careful, experienced management, it being his constant aim to produce stock absolutely true to name and peculiarly adapted to the climate and other conditions of the Northwest. That he was successful in his efforts we believe to be fully proven by the large number of thrifty orchards grown from stock from our nurseries, now bearing fruit in abundance throughout the Western states.

In 1896 S. A. Miller secured an interest in the nursery and assumed the management of the business. At that time more ground was secured and a larger acreage planted to nursery stock, and the business continued to grow. A few years later the names of G. W. and C. B. Miller were added to the firm, and in the spring of 1908 the business had reached such a great volume that in order to better

facilitate its management, the firm was incorporated, with a capital stock of \$50,000.00 under the name of Milton Nursery Company, the stock being fully paid up and all retained by the old firm of A. Miller & Sons.

The Company now has TWO HUNDRED FIFTY ACRES devoted exclusively to the growing of nearly TWO MILLIONS of fruit, shade, ornamental trees and shrubbery. The soil on which we grow our trees is perfectly adapted to the raising of nursery stock and producing a fine system of golden yellow, fibrous roots, as well as unusually healthy and thrifty tops.

We thank our friends and customers for the liberal patronage we have received for more than a quarter of a century, and believing this is only attained by honest and fair dealing with all, we hope, in the same manner, to retain the trade and confidence already placed in our nursery, as well as to increase it.

Knowing that never before have we offered a finer stock to the public, we feel that we need no other guarantee than our record of the past years. It is our constant aim and intention to supply only the best stock at lowest prices consistent with the quality of the goods offered, and all intending purchasers will find it to their advantage to give us an opportunity to furnish estimates upon their lists. We, therefore, solicit your orders, promising that every endeavor will be made to make each customer satisfied.

**MILTON NURSERY COMPANY.**

Milton, Oregon.

## The Outlook

After reviewing the history of orchard planting, we feel that we can consistently urge the setting of commercial as well as the extensive planting of home orchards to the standard varieties of the various kinds of fruits.

Markets have been broadened, transportation increased and improved, methods of handling are being perfected and crops are being insured by scientific study and the fruit growers' problems are being solved successfully as they present themselves. All this tends to insure success if coupled with earnest, intelligent, and intensive application on the part of the grower. The work being of such a fascinating nature this makes it a pleasant task.

The annual loss from old age, neglect, and mortality, among fruit trees, has curtailed production to an alarming extent throughout the fruit growing regions. The annual plant is not making up for these losses that occur each year. In reality, taken as a whole, the fruit industry is not on the increase, as some

are wont to declare, but we are actually losing ground. In the face of these conditions, we believe it is time to plant the standard varieties of the various kinds of fruits.

### We Do Not Quote Prices

The uncertainty of conditions in the Nursery field, owing to such items as labor, packing material and other items that govern prices on Nursery Stock, also because of the fact that the supply on many varieties is so limited, makes our old time custom of putting permanent price on every item in catalog as heretofore, impractical and impossible.

So we have done the next best thing and enclosed a price list with this book which you can use in making up your order.

## Oregon State Board of Horticulture

### Certificate of Inspection of Nursery Stock

This is to Certify, That I have this 25th day of August, 1921, inspected and examined the Nursery Stock of MILTON NURSERY COMPANY, located at Milton, Oregon, and so far as I am able to ascertain, have found it in GOOD, MARKETABLE CONDITION, AND CLEAR OF ANY SERIOUS INSECT PEST OR DISEASE. Their methods of handling and growing stock are exceptionally good.

This certificate expires August 30, 1922.

H. H. WEATHERSPOON,  
Commissioner 5th District, Oregon.

## Fruit Department

### To Washington, Oregon, Idaho and California Purchasers

Purchasers from these points will remember that we are under bonds to the amount of \$1,000.00 to \$5,000.00 for license to ship trees in said places, which is required by law. If any of our nursery stock is found to be infected with pests of any kind, we are held responsible by these states and the infected stock is burned. While we never, to our knowledge, have sent out an infected tree, this will serve for an extra warrant that stock from our nursery will be clear from all insect pests. And furthermore, we are in the nursery business to stay, and we realize that our future success depends on sending out only clean, thrifty trees, true to name.

### Hints on Planting, Culture, Pruning, Etc.

All communications relative to nursery stock and prices will be attended to promptly, and any information or advice that we are able to impart, when desired, will be given freely.

**What to Plant.** Select thrifty young trees in preference to old or very large ones; the roots are more tender and fibrous and bear transplanting better and are far more apt to live. They can also be more easily trimmed and shaped to any desired form, and in the course of a few years will usually outstrip the old ones in growth. The largest and most successful planters almost invariably select one-year-old trees.

**Treatment.** When the trees are received from the nursery, bury the roots in well pulverized soil until you are ready to plant them. Never expose the roots to sun or wind. If trees are received in a frozen state, place the package unopened in a cellar, away from frost and heat, until thawed out, then unpack. If partly dried from long exposure, bury entirely in the ground, or place in water from twelve to twenty-four hours.

**Planting.** Make the holes large enough to admit the roots without cramping or bending and deep enough to bring the tree to its natural depth. The fine surface soil should be used in covering the roots, and this should be carefully worked among them. If the ground is dry it is well to pour in some water when the hole is partially filled. See that the ground is firmly and solidly packed over all parts of the roots, so there will be no opportunity for dry air or frost to enter and destroy roots deprived of the full benefit of their natural protection. Omission to pack the earth solidly is a more frequent cause of failure in planting nursery stock than any other. Fill the holes full enough to be even with the surrounding surface after the fresh earth settles. Large standard trees should be staked and tied so that the wind will not loosen the roots. Be sure to cut the tops back fully one-third soon after planting; more is better.



Autumn Strawberry Apple. (See page 3.)

**After Culture.** Cultivate vegetables among trees, never grain or grass. In order to make your trees have a good healthy growth you must cultivate them the same as you would corn or potatoes; in fact you cannot cultivate them too much the first three years.

**Pruning.** Pruning should be varied according to the condition of the tree and the purpose of the planter. It should be done regularly every spring before the buds swell. By doing this the removal of large branches will be avoided.

**Shade Trees.** If large, should be cut back liberally when planted and well staked until they become firmly established. After pruning will seldom be necessary as they are to provide shade and will form natural heads.

Careful attention should be given to spray ing both as a preventive and a curative measure. When signs of disease or attack by insects are first seen a remedy should be sought and carefully applied. Timely application of a suitable spray may save a large expenditure later, even the tree itself or perhaps the whole orchard. Consult the State Agricultural College Bulletins on this subject.

### Distances for Planting

Feet apart each way.

Standard Apple .....	25 to 30
Standard Pears .....	20 to 25
Strong Growing Cherries .....	20 to 25
Duke and Morello Cherries .....	16 to 18
Standard Plums and Prunes .....	16 to 18
Apricots, Peaches and Nectarines .....	16 to 18
Grapes .....	7 to 10
Currants and Gooseberries .....	4 to 6
Raspberries and Blackberries .....	3 to 4 by 5 to 7
Strawberries for field culture .....	1 to 1½ by 4 to 4
Strawberries for garden culture .....	1 to 2



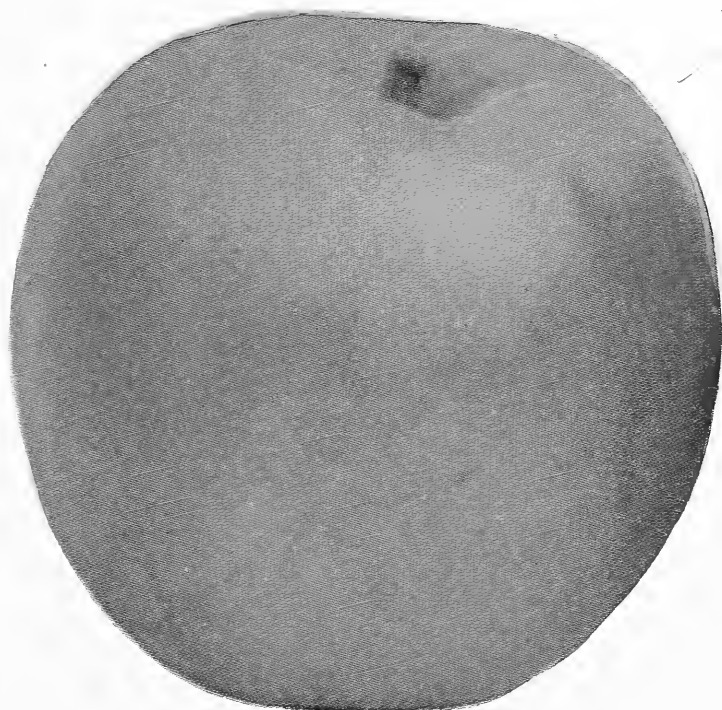
**Rule, Equilateral Triangle Method.** Divide the number required to the acre, "square method," by the decimal .866. The result will be the number of plants required to the acre by this method.

**Rule, Square Method.** Multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill, which, divided by the number of square feet in an acre (43,560), will give the number of plants or trees to the acre.

				Square	Triangular					Square	Triangular
				Method	Method					Method	Method
	Distance						Distance				
1 foot	apart each way,	No.	Plants....	43,560	50,300	12 feet	apart each way,	No.	Plants....	302	348
2 "	" " " "	"	" ....	10,890	12,575	14 "	" " " "	"	" ....	222	256
3 "	" " " "	"	" ....	4,840	5,899	15 "	" " " "	"	" ....	193	222
4 "	" " " "	"	" ....	2,722	3,143	16 "	" " " "	"	" ....	170	191
5 "	" " " "	"	" ....	1,742	2,011	18 "	" " " "	"	" ....	134	154
6 "	" " " "	"	" ....	1,210	1,397	20 "	" " " "	"	" ....	109	125
7 "	" " " "	"	" ....	888	1,035	25 "	" " " "	"	" ....	69	79
8 "	" " " "	"	" ....	680	785	30 "	" " " "	"	" ....	48	55
9 "	" " " "	"	" ....	537	620	35 "	" " " "	"	" ....	35	40
10 "	" " " "	"	" ....	435	502	40 "	" " " "	"	" ....	27	31

# Apples

The apple will grow on a variety of soils, but seldom thrives on very dry sands, or soils saturated with moisture. A deep, strong, gravelly, marly, or clay loam, or a strong sandy loam with gravelly subsoil, produces the best crops, and the highest flavored fruit, as well as trees of the greatest longevity. Always dig the holes large enough to receive the roots without crowding; if one-year trees are planted, cut back to required height to form the head; if two-year-old are planted cut back all laterals about two-thirds.



**Winter Banana Apple.** (See page 4.)

## Summer Apples

**Early Goodwin.** Perfectly hardy, bears an immense crop of fruit annually. Fruit large size, smooth, beautifully colored. Flesh white, tender, juicy, sub-acid; excellent for cooking and dessert.

**Early Harvest.** Fruit medium size, skin yellow, flesh very white, tender and juicy; ripens middle of July.

**Red Astrachan.** Rich, juicy and acid; a strong growing tree, perfectly hardy and a good bearer; July.

**Red June.** A medium size apple of good quality, productive and hardy; July and August.

**Sweet June.** Rather large, pale yellow, sweet and juicy; last of August.

**Yellow Transparent.** The earliest apple grown. Flesh fine grained, juicy, rich sub-acid; the tree is perfectly hardy.

## Fall Apples

**Autumn Strawberry.** Color, streaks of light and dark red; tender, juicy, sub-acid, fine. September to October.

**Alexander.** Of Russian origin; large, deep red; flesh, yellowish white; crisp, tender, with pleasant flavor. Very good. October.

**Duchess of Oldenburgh.** Flesh juicy, sprightly, sub-acid; very hardy; very early and abundant bearer.



McIntosh Red Apple.

**Fameuse or Snow.** Flesh snowy white; juicy and pleasant; tree very hardy. November to December.

**Gravenstein.** Large, striped and beautiful; tender, juicy and high flavored; vigorous and productive. September to October.

**Jeffries.** Flesh white, tender, juicy, with a rich, mild, sub-acid flavor. The best eating apple grown in its season; September and October.

**Maiden's Blush.** Fine grained, tender, pleasant acid flavor; trees extremely hardy; very good. September to October.

**Rambo.** A very popular autumn fruit. It is valuable for the table or kitchen, fruit of medium size, with a rich flavor. October to December.

**Twenty Ounce.** Very large; yellow, striped with red; quality good. Oct. to Dec.

### Winter Apples

**Arkansas Black.** Fruit large, smooth and round, very black, dotted with whitish specks. Flesh yellow, very juicy and a delicious flavor.

**Bismark.** Tree somewhat dwarf in habit of growth; thick, heavy foliage. Fruit large, handsome. Tree a prolific and early bearer. Hardy.

**Baldwin.** Flesh yellowish white with an agreeable mild acid and yet high flavor. November to March.

**Ben Davis.** Showy, rather coarse quality; productive. A long keeper.

**Black Ben Davis.** Of the Ben Davis family. Not distinguished from Gano.

**Bailey's Sweet.** Flesh white, tender, almost melting, with a honeyed sweet flavor. The best late sweet apple. Oct. to Nov.

**Blue Pearmain.** Tree hardy. Fruit large, dark red, rich, sub-acid. December to February.

**Delicious.** Is all that is claimed for it. Is a thrifty grower; very hardy; has never failed to bear full crop. The apples are large, quite even, and for color about half way between Rome Beauty and Jonathan; it is solid; will mellow about Christmas, and will keep until February. Quality and flavor unsurpassed.

**Grimes Golden Pippin.** Flesh crisp, tender, juicy, rich, sub-acid; very good. December to March

**Gano or Black Ben Davis.** Fine grained, tender, pleasant, mild, sub-acid; tree healthy, vigorous and hardy; an annual and prolific bearer. February to May.

**Golden Russett.** Medium size, yellow covered with dull russett. Flesh whitish yellow, fine grained, mild sub-acid. Good.

**Jonathan.** Fine grained, very tender and finely flavored; tree very productive. An excellent market variety. December to February.

**King (King of Tompkins County).** Flavor like the Baldwin. One of our best winter apples. Very saleable. November to December.

**McIntosh Red.** Valuable, hardy, Canada sort; medium size, nearly covered with dark red; flesh white, fine, very tender, juicy and refreshing. A good, annual bearer. November to February. A profitable apple in high altitudes. A leader in Montana.

**Northern Spy.** Flesh white, fine grained, tender, slightly sub-acid and delicious flavor. tree a good grower; a long keeper.

**Rome Beauty.** Tree vigorous and productive; bears quite often when but four years old; fruit large, roundish, approaching conic; yellow shaded and striped with a beautiful bright red; very tender, juicy, sprightly, sub-acid and very pleasant. December to March.

**Rhode Island Greening.** Skin smooth, dark green, becoming yellow when thoroughly ripe; rich, tender and fine grained. November to December.

**Spokane Beauty.** Largest apple known; color a greenish yellow, shaded and striped with deep red; flesh crisp, juicy and rich, with a delicious high flavor; unsurpassed for cooking and drying; a long keeper.

**Spitzenburg.** Esopus. Truly delicious apple; fruit striped and splashed with red; flesh yellow, rather firm, with a delicious rich acid flavor. November to April.

**Stayman Winesap.** Tree much in appearance like Winesap; fruit hangs well on the tree. Fruit medium to large, greenish yellow, striped with dark, dull red; flesh yellow, firm, tender, juicy, rich, mild sub-acid. Season January to May.

**Talman Sweet.** Medium; pale yellow, slightly tinged with red; firm, rich and very sweet; the most valuable baking apple; vigorous and productive. November to April.

**Winesap.** Medium, dark red, sub-acid; excellent. Tree a moderate grower and abundant bearer; an old favorite market apple. December to May.

**White Winter Pearmain.** Above medium size; roundish, oblong, conic; pale yellow, with a slight blush; extra high flavor; one of the best. December to March.

**Wealthy.** Tree hardy, vigorous, productive; a beautiful and excellent fruit; skin smooth, white yellow, shaded with deep rich red; flesh white, fine, sometimes stained with red; tender, juicy, lively sub-acid; very good. December to February.

**Wagener.** Medium to large; deep red in the sun; flesh firm, sub-acid and excellent; very productive and bears very young. December to April.

**Winter Banana.** Fruit large, fine grained, a beautiful golden yellow, shaded with bright red, unusually handsome. Flesh of golden yellow, very large and highly perfumed and considered the finest flavored apple grown. Tree hardy. An early and prolific bearer. November to May.



**Wolf River.** Fruit very large and handsome, being covered with two shades of light and dark red; flesh whitish, juicy, breaking, pleasant sub-acid. A good bearer. November.

**Yellow Newtown Pippin.** This stands as high as any apple in our markets, and is one of the best keepers; flesh firm, crisp, juicy and with a fine flavor. January to June.

**Yellow Bellflower.** Large, oblong; skin yellow, with a beautiful tinge of red on the sunny side; flesh crisp, juicy with a delicious high flavor. October to January.

## Crab Apples

**Hyslop.** Produced in clusters; dark, rich red; flesh yellowish, sub-acid; good for culinary uses and cider. Good last of September.

**Red Siberian.** A beautiful little fruit, produced in rich clusters; highly esteemed for preserving. First of September.

**Transcendent.** A handsome little apple for dessert and preserving. Early autumn.

**Yellow Siberian.** Small, beautiful golden yellow. September to October.

**Whitney's No. 20.** One of the largest Crabs; glossy green, splashed carmine, juicy, pleasant; great bearer, excellent for cider. August.

## Pears

The best soil for this fruit is a strong loam of moderate depth on a dry sub-soil. Trees should be handled in same manner when planting, as any other fruit tree, not failing to cut back tops, which insures better growth. Most varieties are much finer in flavor if picked from tree before being fully mature, and allowed to ripen off the tree.

### Summer Varieties

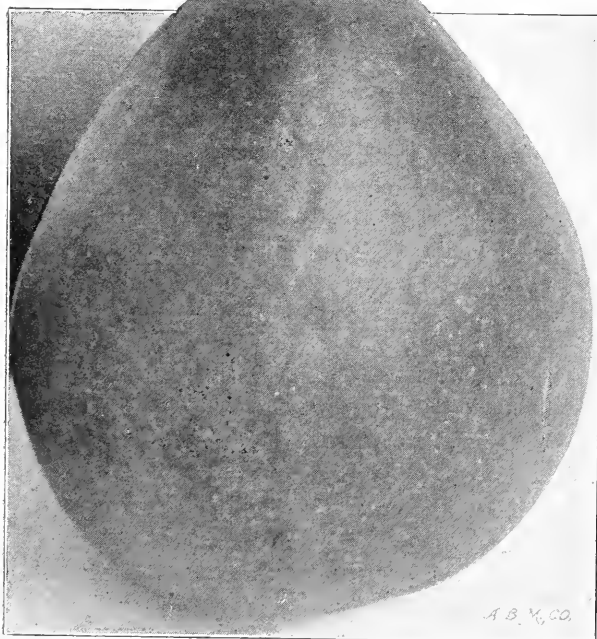
**Bartlett.** Large, buttery, juicy, high flavored; great bearer. One of the most popular of all the summer varieties. August to September.

**Clapp's Favorite.** Fruit large, skin thin, pale yellow; flesh white, fine grained, juicy, buttery, melting, rich, sweet, vinous; a little perfumed; very good. Ripens two weeks earlier than Bartlett.

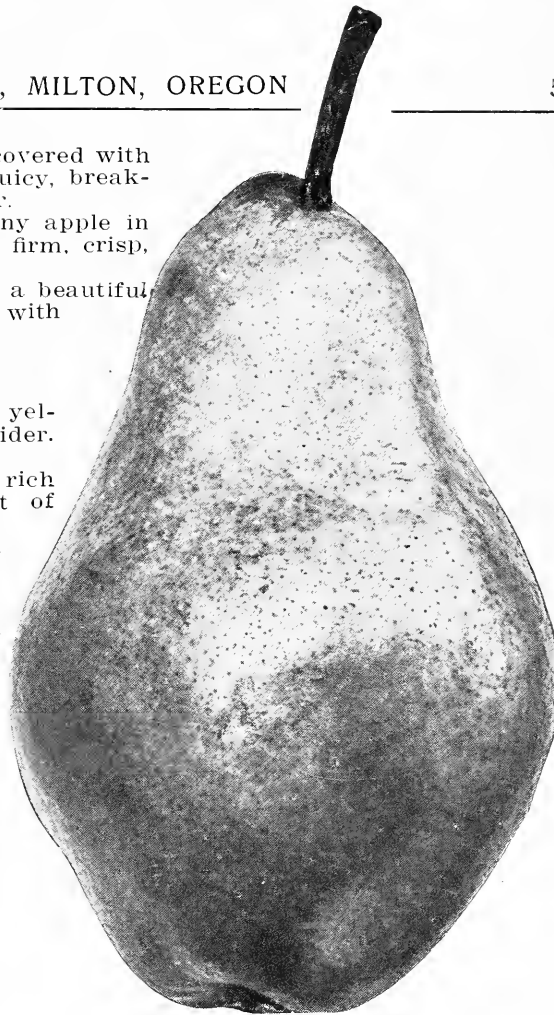
### Autumn Varieties

**Beurre d'Anjou.** A large; flesh yellow, fine grained. Tree a good bearer. October

fine pear; rather lowish-white, but rich, vinous flavor. grower and fine and November.



Flemish Beauty Pear.



Bartlett Pear.

**Buerre Bosc.** Large, deep yellow russet colored, long neck. Half melting, juicy, delicious with pleasant odor. Tree good grower and productive. Good shipper. September.

**Doyenne du Comice.** Tree moderately vigorous, upright grower. Fruit large, roundish. Skin greenish yellow, becoming fine yellow at maturity, often lightly shaded with crimson and fawn in the sun. Flesh white, fine, melting, a little buttery, juicy, sweet, rich, slightly aromatic. Very good. October to November.

**Flemish Beauty.** Fruit large, pale yellow, becoming reddish-brown at maturity on the sunny side. Flesh yellowish-white, juicy, melting, very saccharine and rich. Last of September.

**Louise Bonne de Jersey.** Rather large, greenish-yellow, with a bright red cheek; juicy, buttery and melting; excellent, very productive; a fine grower. September and October.

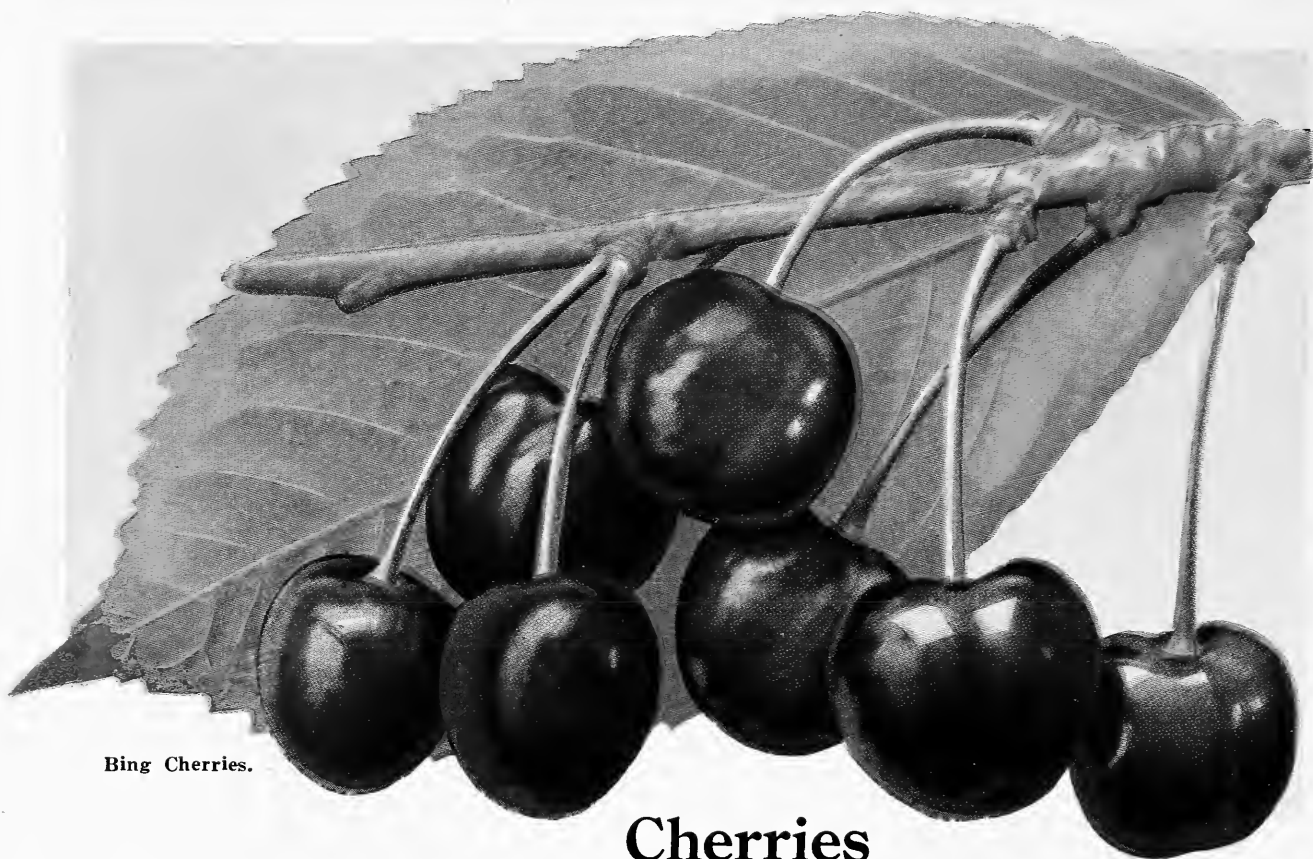
**Seckel.** Small, yellowish brown, red cheek; sweet, juicy, melting. Best. September and October.

**White Doyenne (Fall Butter).** Medium; pale yellow, with a faint blush; fine flavor. October to November.

### Winter Varieties

**Winter Nelis.** Tree hardy and thrifty; a very delicious winter pear of medium size; flesh yellowish-white, fine grained, buttery and very melting, abounding with juice of a rich, aromatic flavor; good to very good. December to February.

**Winter Bartlett.** Fruit large, closely resembling the Bartlett in shape and appearance, perfectly smooth, flesh tender; juicy and melting; flavor similar to the Winter Nelis, but season a little later, and as good as can be desired.



Bing Cherries.

## Cherries

In planting a cherry orchard care should be taken not to plant the trees too close together; select a dry soil for the cherry, as a rule, although it is so hardy a tree that it will thrive in a great variety of soils, yet a good sandy, or gravelly loam is best. Use same care in planting as other trees.

Orchardists are resorting more and more to the planting of varieties of cherries that are strong pollenizers. Experience seems to demonstrate that such varieties as Black Tartarian, Black Republican, and Long Stemmed Waterhouse, are the best varieties to use for this purpose. Usually about one in every ten trees has proven to be the right proportion to use of these pollenizers.

### Sweet Varieties

**Bing.** This grand new black cherry was originated by Seth Luelling, of Milwaukie, Ore. Almost as large again as the Black Republican; flesh very solid, flavor of the highest quality; tree thrifty, upright grower, very hardy and productive; a fine shipping and market variety. First of July.

**Black Republican.** Fruit large, very dark color when ripe; very rich and solid and an excellent keeper. Middle of July.

**Black Tartarian.** Very large, purplish-black, half tender; flavor mild and pleasant. Tree remarkable, vigorous, erect and beautiful grower, and an immense bearer. Ripe last of June and beginning of July. Extensively used as pollenizer.

**Early Purple.** An early variety, ripening the last of May in favorable season; skin dark red, almost black, flesh juicy and rich.

**Lambert.** Size very large; form roundish, heart shaped; cavity medium, regular, with gradual slope; stem long, slender, suture of medium depth, wide, extending from cavity to apex, which is of a round russet dot in a broad depression; surface smooth, glossy; color dark purplish-red, with numerous minute, indented russet dots; flesh dark purplish-red with whitish veins, meaty and of firm texture; semi-cling, small seed for so large a fruit; flavor sweet or very mild sub-acid, aromatic, rich. Quality very good and an excellent shipper.

**Royal Ann.** Fruit large; very dark color when ripe, very rich and solid and an excellent keeper. Middle of July.

**Waterhouse, Long Stemmed.** This variety is being planted extensively as a pollenizer for Bing, Lambert and Royal Ann. It differs but little from Royal Ann and that only in size as it has same shape, ripening period, heavy bearer and of good quality.

### Duke and Morellos

**Early Richmond (Kentish).** Medium size, bright red; flesh melting, juicy and rich acid flavor. Last of June.

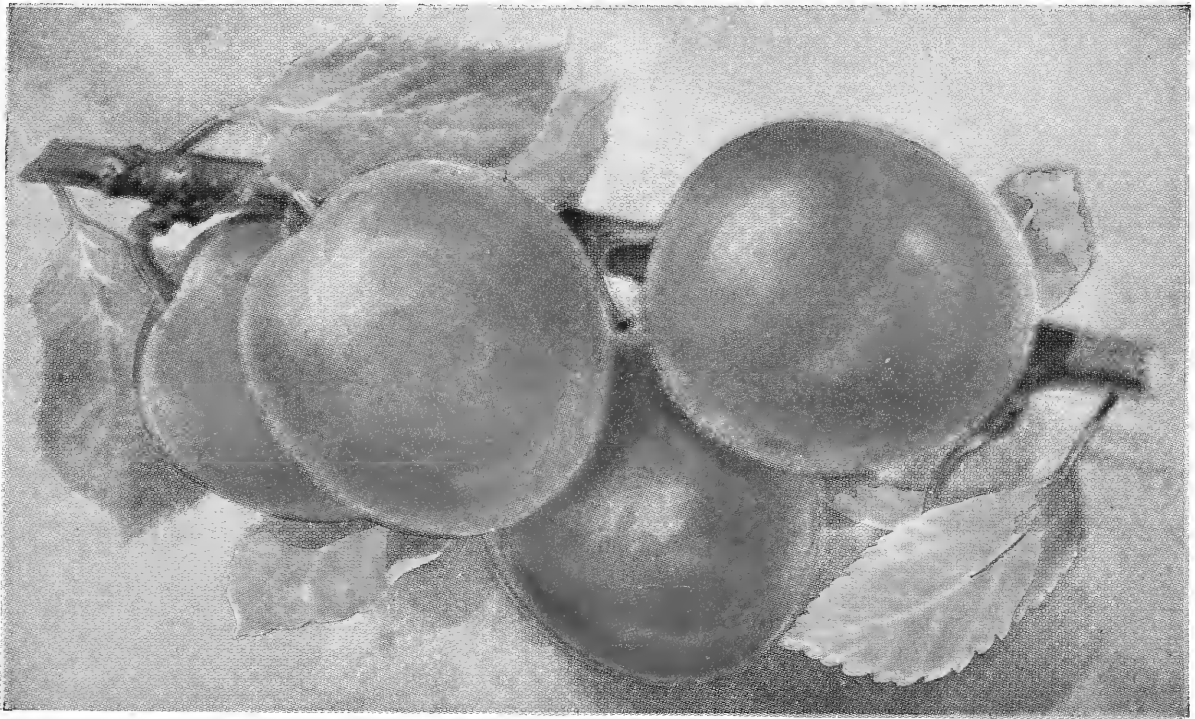
**English Morello.** Medium to large; blackish-red, rich, acid, juicy and good.

**Late Duke.** Fruit large, roundish, rich, dark red, sub-acid. Tree hardy; very valuable. Ripens last of July.

**May Duke.** This is one of the best hardy cherries; medium size, dark red, melting, rich and juicy. First of June.

**Montmorency.** Large. Tree very hardy and immense bearer, fruiting when young and is a regular bearer of fine crops; fruit large, fine flavor, shining red, valuable everywhere, especially west of the mountains in coast sections where it is planted for commercial canning purposes. One of the finest acid cherries. About a week later than Early Richmond.

**Olivet.** Tree hardy; fruit very large; a shining deep red sort; tender, rich and good. Last of June.



Burbank Plums.

## Plums

The finest and most abundant crops are borne in clay loam soils. The varieties selected will do well in most sections of the Northwest.

**Blue Damson.** Fruit small, oval; skin dark purple, covered with blue bloom; much used for preserves.

**Bradshaw.** Large, dark red; flesh green, juicy, good; ripens first of September.

**Burbank (Japan).** Tree a vigorous grower; early and very heavy bearer; fruit very large; yellowish ground, with red cheek in the sun; flesh yellow, firm and very sweet when fully ripe; extremely small pit, which clings. Middle of June.

**Coc's Golden Drop.** Large and handsome; light yellow, firm, rich and sweet. September.

**Formosa.** Unusually handsome fruit, very uniform in size, averaging about six by eight inches in circumference, shading from light to deep cherry in color, sweet, delicious, delightful apricot flavor; nearly freestone.

Trees thrifty growers, large, thick, healthy, light green foliage. "Best plum in existence" at the present time.

**Green Gage.** A medium small greenish yellow plum of high quality. One of the best of American sorts. Midseason.

**Peach Plum.** Fruit of the largest size and earliest to ripen; regularly formed, roundish; skin red, dotted with a blue bloom; flesh greenish-yellow; becomes tinged with red at maturity; a rich, brisk flavor; the leading market variety. Middle of July.

**Satsuma.** Japanese variety, blood red flesh, small pit, pleasant flavor. Hardy.

**Yellow Egg.** Largest size; skin yellow; flesh yellow, very sweet; first-class for canning and a good bearer. September.

## Prunes

The prune is very similar to the plum, requiring same soil and planting treatment. Generally used for drying; also valuable for shipping in fresh state.

**Hungarian.** Largest size, with a beautiful bright red, making it one of the best for marketing; not good for drying. September.

**Italian (Fellenberg).** Medium to large size, oval, dark purple; flesh juicy, sweet and delicious; a standard drying and shipping variety. September.

**Petite d'Agen (French Prune).** The well-known variety so extensively planted for drying; medium size, reddish purple, juicy, sugary, rich and sweet; bears immense crops. September.

**Silver Prune.** Large size and sweet; a good dryer; ripens rather late for Northern climates. October.

**Sugar Prune.** An extremely early prune, ripens August 1st; cures superbly rich, with a yellow flesh, tender and rich in sugar juice; fruit large, skin very tender, at first of a light purple, tinted with green, changing at maturity to dark purple, covered with a thick white bloom. Tree a vigorous grower and very productive.

**Tragedy.** Medium size; skin dark purple; flesh of yellowish green, very rich and sweet; frees readily from pit. Its early ripening (in July) makes it a valuable shipper.



Early Elberta Peaches.

## Peaches

The best soil for the peach is a deep rich sandy loam. Trees should be vigorously pruned back when planted to form good strong heads.

**Arp Beauty.** Of the Elberta type, but hardier in tree, bud and bloom; very prolific. Skin yellow, blushed and mottled bright crimson; flesh yellow, firm, juicy, excellent flavor. Ripens when Alexander is going out. An extra good shipper. Sometimes freestone when ripe. The best early peach grown.

**Alexander.** Medium to large; greenish-white, covered with a deep rich red; very juicy, clinging to stone. Best early market variety.

**Champion.** It is a large, handsome peach, with a creamy white skin and beautiful red cheek. In flavor it is exquisite, and is a true freestone. Ripens about the middle of July.

**Early Crawford.** A magnificent, large yellow peach of good quality. Its size, beauty and productiveness make it one of the most popular varieties. Extensively planted. Freestone.

**Elberta.** Very large; skin golden yellow where exposed to sun, faintly striped with red. Flesh yellow, very fine grain, juicy, rich and sweet. Tree very prolific and presents a handsome appearance. Freestone. Sept.

**Early Elberta.** Freestone, mid-season, of the Elberta type. Large golden-yellow flesh, far better in quality than the Elberta, sweeter and finer grained. Tree strong grower, has tendency to thin itself like Elberta, carrying moderate loads of fruit. A splendid canning variety, remaining solid and good color. It passes on the market as the Elberta but the customer gets a better peach and the grower repeat orders. Ripens about ten days before Elberta, along with Early Crawford.

**Hale's Early.** Medium, nearly round; skin mottled red, dark red cheek. Flesh white, juicy, melting, high flavored, freestone. Aug.

**Heath Cling.** A most delicious cling. Very large; skin downy, creamy-white with faint blush of red; flesh white, slightly red at the pit; very tender, juicy and sweet; valuable for canning; season early September.

**Indian Peach.** Very large, dark purple clingstone. Flesh dark purple, firm and rich. September.

**J. H. Hale.** In size and color surpassing Elberta, freestone, solid, free from stringiness, excellent flavor, good keeper and shipper. Coming commercial peach.

**Lemon Cling.** Large size, lemon color. One of the best market varieties, on account of its firmness, size and excellent qualities. Sept.

**Late Crawford.** A superb, large, yellow, freestone peach; very rich. Last of September.

**Mayflower.** Earliest of all varieties, well colored all over, tree vigorous, bears young and heavy, good flavor and size.

**Malta or Muir.** Very sweet and firm, yellow, with sometimes faint blush. Large, very free, pit quite small. Most popular drying and canning variety on the coast. August.

**Orange Cling (Runyan's).** Fruit large, yellow, rich, sugary, vinous flavor. Tree heavy bearer, hardy.

**Perfection.** The fruit is of the largest size, yellow, with a beautiful blush cheek. The flesh is thick and very fine grained, yellow, with red around the pit, which is nearly as small as a prune seed. Its tough skin, firm flesh and good keeping qualities place it in the lead for a desirable shipping and market variety. Ripens from 10th to 15th of September. We cannot recommend this new peach too highly to our friends and patrons.

**Salway.** A large, yellow English peach, with deep yellow flesh; very juicy, melting and rich. A valuable late market variety.

**Slappey.** Fruit yellow, good keeper, excellent flavor, fine grained, rich. Hardy, best medium early yellow peach.

**Triumph.** Earliest yellow flesh peach; ripens a few days later than Alexander, blooms late; sure and abundant bearer; strong vigorous grower; fruit good size; yellow, with red and crimson cheek.



## Nectarines

In growth, habit, treatment and soils precisely similar to the peach. Valuable for dessert; smooth skin.

**Early Violet.** Medium size, skin yellowish green, with a purple cheek. Flesh melting, rich and highly flavored. July.

**Boston.** Medium; deep yellow, with a bright blush and deep mottlings of red; flesh yellow without any red at the stone; sweet, though not rich, with a pleasant and peculiar flavor. Freestone.

**Humboldt.** Large, orange-yellow color, orange flesh. Better than Boston.

## Apricots

This is one of the most beautiful of the stone fruits. A thrifty grower soon making a fine head, producing an abundance of fruit. Requires practically same conditions and treatment as the peach.

**Moorpark.** Fruit large, roundish, about 2 1/4 in. in diameter. Skin orange in the shade, but deep orange or brownish-red in the sun. Flesh quite firm, bright orange, parting from the stone. Ripens early in August.

**Peach Apricot.** One of the largest; fruit firm, juicy, with a rich flavor; productive. Last of July.

**Royal.** A fine large French variety; fruit roundish, large, oval, slightly compressed. Skin dull yellow with an orange cheek, very faintly tinged with red. Flesh pale orange, firm and juicy, with a rich, vinous flavor. Ripens the latter part of July.

**Tilton.** Fruit large size, rich apricot color, with a flavor of the highest quality. As a result of its fruit buds putting out much later than other varieties it is said to bear immense crops every year, and is considered the most prolific of all apricots, either for canning or drying.

### Russian Variety

**J. L. Budd.** Tree a strong grower and profuse bearer; fruit large, white, with red cheek; sweet, juicy, with a sweet kernel, as fine flavored as an almond; the best late variety and a decided acquisition. July.

## Quinces

This fruit is valuable for flavoring and preserving either alone or for its pleasant flavor if added to other fruits. Rather moist soils which are deep and rich give best results.

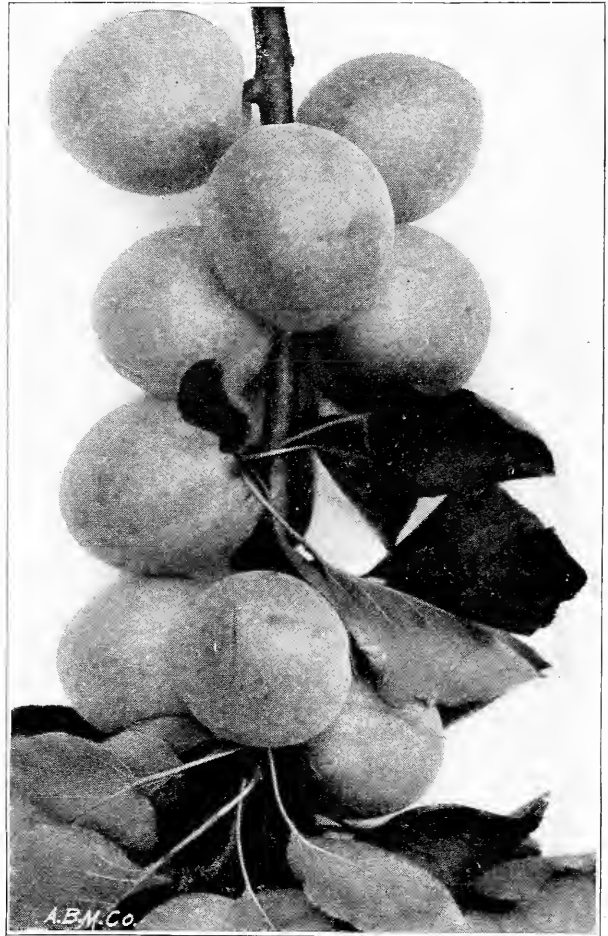
**Champion.** A prolific and constant bearer. Fruit large and of excellent flavor. Bears extremely young. Hardy.

**Orange Quince.** Large, golden color. Excellent for preserves and flavoring.

**Pineapple.** Originated by Luther Burbank. Suggestive of the pineapple. Makes a superior jelly. Can be eaten raw and is said to cook as tender in five minutes as the best cooking apple; possessing a most exquisite and delicious flavor not equaled by any other quince.

## Nut Trees

The planting of nuts of various kinds would prove profitable in many places unsuited to other purposes. Waste places and hillsides could be utilized and made to produce profit if planted to walnuts, chestnuts, or filberts. The better the soil, however, the greater the results.



Moorpark Apricots.

## Almonds

**I. X. L.** Large, generally single kernel; hulls easily; soft shell; tree is strong, upright grower.

**Nonpareil.** Large, full kernel, thin shell; tree of a weeping habit and a strong grower.

## Chestnuts

**Spanish or Italian.** A handsome, round-headed tree, producing abundantly very large nuts that find a ready market at good prices. Not quite as sweet as the American Chestnuts. Tree is hardy with us.

## Walnuts

**American Black.** This valuable tree grows and succeeds well on this coast. Valuable for timber and nuts.

**Butternut or White Walnut.** A fine native tree, producing a large, longish nut, which is prized for its sweet, oily nutritious kernel. Tree hardy.

## English Walnuts

Trees begin to bear in about six years. This tree is propagated by grafting, budding, and from seed. The grafted tree is harder to grow and commands a higher price. An excellent nut is produced from trees grown from selected first generation nuts. The nuts we plant are from a choice strain of grafted varieties, growing in the nut districts of California.

**Franquette Walnut.** Nut very large and long; kernel full fleshed, sweet and rich; buds out late in the spring, which enables it to escape the disastrous effects of late frosts. Tree a hardy, thrifty grower and abundant bearer.

## Grapes

There are two distinct classes of the grape; the American, or hardy varieties and the European, which usually require some winter protection to insure a crop each season. A dry and warm soil is considered best for the grape and if deep and rich will bring it to perfection.

### American Varieties

**Agawam.** Vine very vigorous, productive; bunch large, moderately compact, shouldered; berry large, roundish, dark red or maroon; flesh almost tender, juicy, vinous, rich, peculiar aromatic flavor. Especially adapted for arbor culture. Ripens with the Concord. We consider this the best of American varieties.

**Concord.** The well known standard variety, succeeds wherever grapes will grow. Black, sweet, good. First of September.

**Chasselas Musk.** Berries round, amber colored, russety when ripe, strong delicious sweet musky flavor.

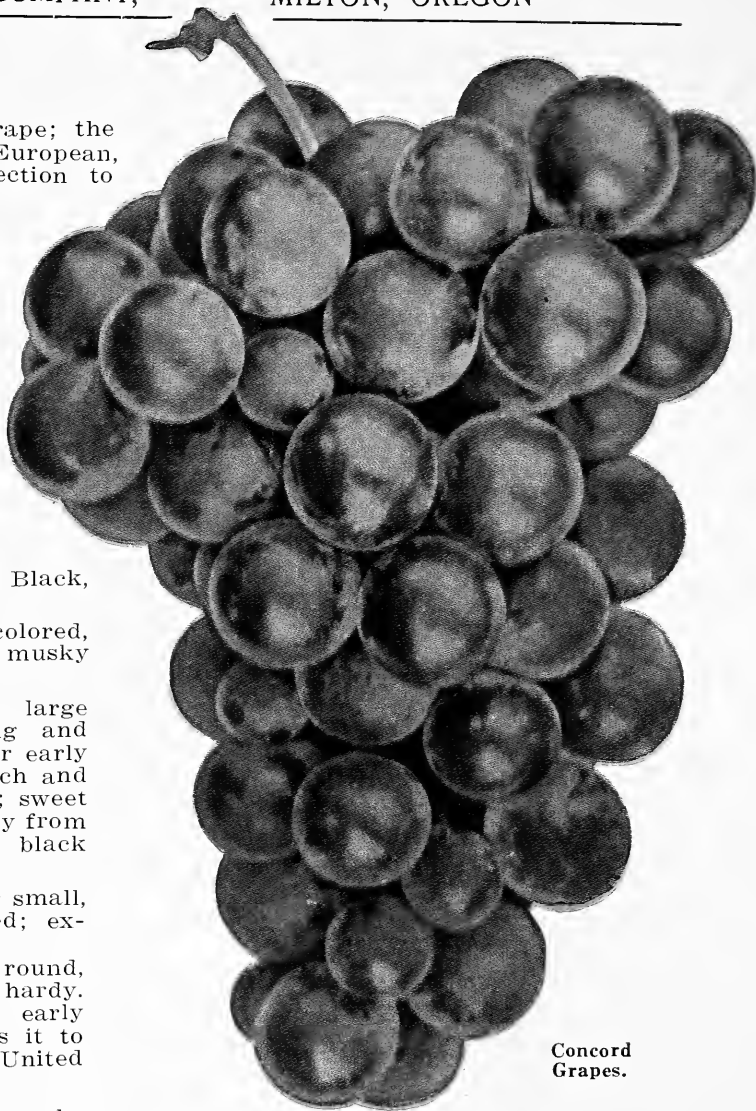
**Campbell's Early.** Strong grower, with large healthy foliage; productive; its keeping and shipping qualities are equalled by no other early grape. Ripens with Moore's Early. Bunch and berry large, glossy black with blue bloom; sweet and juicy; seeds few and small; part readily from the pulp. Stands at the head of early black grapes for quality.

**Delaware.** Bunches compact; berries rather small, round, skin thin, of a beautiful light red; exceedingly sweet. September.

**Moore's Early.** Bunch large; berry large; round, with heavy blue bloom; vine exceedingly hardy. Its earliness makes it desirable for an early market. Its hardiness particularly adapts it to Canada and northern portions of the United States.

**Niagara.** Occupies the same position among the white varieties as Concord among the black. A profitable market sort. Bunch and berries large, greenish white, changing to pale yellow when fully ripe. Skin thin; quality much like Concord.

**Worden.** This new variety is a seedling of the Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored and ripens several days earlier.



Concord  
Grapes.

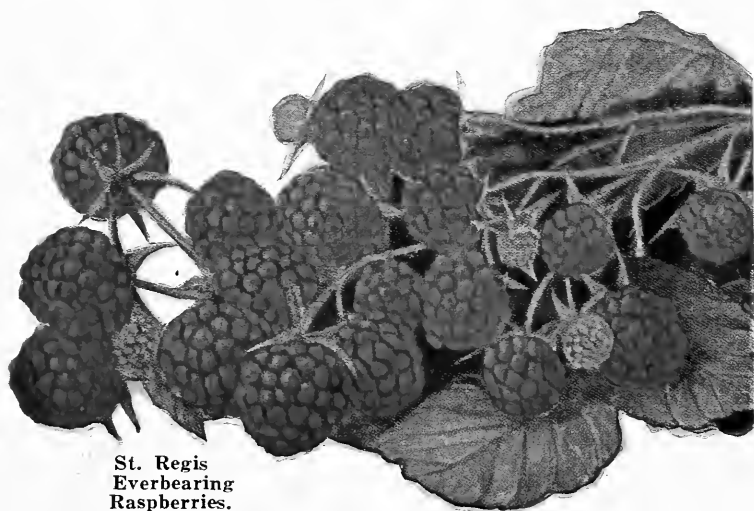
### European Varieties

**Black Prince.** Very large, oval; bunches medium; flesh firm, with a rich delicious flavor, and highly esteemed as a market variety. September.

**Flame Tokay.** Bunches very large and moderately compact; berries large, skin thick, pale red, covered with bloom; flesh firm, sweet; an old standard variety, always demands a good price in the markets, and as a table grape, more extensively planted than any other variety. October.

**Muscat of Alexander.** Bunches large, long, and loose; berries large, slightly oval, pale amber when ripe, covered with a thin, white bloom; flesh firm, brittle, exceedingly sweet and rich; fine flavored; the variety most extensively planted for raisins. September.

**White Sweetwater.** Vines hardy; fruit rich and sweet. Very much resembles the Royal Muscadine but the berries are not so compact on the bunch. First of August.



St. Regis  
Everbearing  
Raspberries.  
(See next page.)

GENUINENESS—QUALITY  
FIRST AND  
LAST



## Raspberries

**Cumberland.** The largest Black Raspberry known. In hardiness and productiveness it is unexcelled by any other variety.

**Golden Queen.** A beautiful, large, golden yellow berry; seedling of the Cuthbert and surpassing that variety in size, beauty, quality and adaptability. Canes hardy, of strongest growth, productive. Should be in every home garden, its beauty and high quality placing it at the head for table use.

**St. Regis.** The wonderful everbearing raspberry. Should be grown in every home garden. This raspberry will give you a crop of berries from July till frost. It begins ripening with the earliest red raspberries and continues bearing on the young canes all along till fall. Berries bright crimson, large size, sweet, rich raspberry flavor. We recommend it for home gardens but not as a commercial variety.

## Currants

**Fay's Prolific.** The berry is fully equal to Cherry Currant, while the flavor is much superior. The stems are double the length on an average, and the fruit hangs on well, never dropping as in other currants. Surpasses any other variety ever introduced.

**Lee's Prolific (Black).** A new English variety. The fruit is large and of superior quality; the bush is a vigorous grower and enormously productive, rendering it very profitable.

**Perfection.** Berries are a beautiful bright red and larger than Fay's Prolific. In quality it is said to be superior to anything in the market today; rich, mild, sub-acid flavor, with plenty of pulp and few seeds. clusters are long and size of berry is maintained to the end.



Perfection  
Currants.

## Strawberries

**Note.** We put up plants in bunches of fifty. Do not order less than fifty of a kind as we do not break bunches and a less number would be of little value to you.

Strawberry plants shipped in spring only. Fall planting is unsatisfactory. 25% cash with order, balance C. O. D. prepaid express or mail. We find it unsatisfactory to ship with tree orders by freight.

**Gold Dollar.** Early, large size, dark red clear through, fine flavor. Perfect bloom, heavy cropper, adapted to most sections.

**Hood River (Clark's Seedling).** Originated at Hood River, Oregon, where it is planted to the exclusion of all others for long distance shipments; large, round, and smooth; beautiful dark red; quality unsurpassed. Ripens early.

**Oregon.** A vigorous grower, and well adapted to a variety of soils and locations. Abundant bearer, large well formed berries of good quality. Bears through a long season.



Progressive Everbearing Strawberries.  
(See page 12 for description.)



Lucretia Dewberries.

### STRAWBERRIES—Continued.

**Progressive.** The most productive, and all things considered, the best Everbearing Strawberry ever introduced. Sure cropper, producing big loads of berries every year. Thrifty grower, free from disease. For best results would advise cutting off all runners which will throw vitality in the plant and crop. Berries excellent quality, delicious flavor, beautiful color. Cannot be surpassed for home use. Many are growing it for market also and readily obtain good prices for the fruit. Will bear till frost comes.

**Superb.** This variety begins bearing in June and bears almost continually till freezing weather. Berries large, beautiful color, delicious flavor, ripens evenly; healthy, productive plants.

## Blackberries

**Evergreen.** Heavy grower, berries large, black, sweet, delicious, long season. Good for trellis.

**Himalaya Giant.** Vigorous grower, must be trellised, fruit large, black, abundant bearer, juicy, small seed and core, heavy yielder, distinct flavor.

**Lawton.** Large, black, sweet. Very productive. One of the best.

**Mammoth.** Grows entirely unlike any other blackberry plant known. It is a rampant grower, trailing on the ground, and under favorable conditions will grow twenty feet in a season; the canes are large, of deep red color when exposed in the sun; productive and exceedingly early, ripening three weeks before other cultivated kinds; fruit enormous specimens; seeds small, core small, soft; in size and flavor said to surpass all other varieties of blackberries. Vines not very hardy.

**Mersereau.** Early, mammoth, ironclad blackberry. In quality, it is exceptionally sweet, rich, melting and luscious, being without core; the seedy character of the Snyder and most other sorts is noticeably absent.

## Hybrids

**Logan (Raspberry-Blackberry).** Fruit size of large blackberries, same form and shape; color dark, bright red; partakes of the flavors of both blackberry and raspberry; mild, pleasant, vinous, excellent for table and for canning, jelly, etc. Seeds few and small.

## Dewberry

**Lucretia.** One of the low-growing, trailing blackberries. In earliness, size and quality it equals any of the tall growing sorts. The plant is extremely hardy, healthy and productive. Fruit is of the largest size, soft, sweet, luscious throughout, with no hard core. Very valuable.

## Gooseberries

The best soil for it is a deep strong loam, well enriched. For the gooseberry regular and liberal pruning is very essential.

**Oregon Champion.** Large, skin light green. Flesh very sweet, juicy, excellent flavor; very prolific bearer and will not mildew.

## Mulberries

This tree should be planted in every garden. A hardy deciduous tree thriving in a great variety of soils.

**Russian.** A very hardy, rapid grower. Fruit small but produced in abundance. A valuable tree for wind-breaks.

## Rhubarb or Pie Plant

Rhubarb, with its flavor of the springtime, is a valuable aid to the action of the gastric juice, adds novelty to the bill of fare, has the good points of a fruit, and combines deliciously as a dessert or a conserve.

**Mammoth Rhubarb.** Early, very tender, and has mild sub-acid flavor, not "stringy" or tough. The plant is large, and for pies or other culinary purposes, a favorite.

## Asparagus

To prepare a bed, dig the ground deep, incorporating large quantities of well decomposed manure. Plant the roots about three inches deep, in rows two and one-half feet apart and one foot apart in the rows.

**Conover's Colossal (White).** A standard kind of first class quality. Tender and high flavored; valuable market garden sort.

**Palmetto (Green).** Extensively grown for market on account of earliness, large size and fine appearance.

## Horseradish

**Horseradish.** Requires deep, fertile soil for best results; roots pungent, used for pickling and flavoring.



Mersereau Blackberries.



The Judicious Use of Shrubs Transforms Grounds into Pleasing Landscape.

## Ornamental Department

### Shade and Ornamental Trees, Shrubs, Plants, Vines and Roses

Much of the time and activities of the home builder throughout the Northwest has been spent in the development of that which will furnish substantial cash returns in the way of setting and care of commercial orchard fruits, etc. This has been done at the expense of the esthetical side of life, as many of our home grounds and public parks testify. A very small outlay of time and money, with a careful selection of suitable shade and ornamental trees and shrubbery, will add beauty and comfort to the home and enhance its value commercially many fold. Many undesirable and barren spaces adjacent to many of our towns could be made into cool retreats by planting trees and shrubs. In planting shade trees it should be done with the thought that they will need as much care and attention for a few years at least as our orchard. Quicker and more satisfactory results will thus be obtained.

Select well shaped, nursery grown trees in preference to forest grown trees, or cheap stunted nursery stock. The wide range in selection offered makes it easy to secure trees for all purposes. The large number of varieties, habits of growth, variations in foliage and floral effects may be used very advantageously in beautifying the garden or the landscape.

Our trees are all select specimens and such as are found to be adapted to the conditions which obtain generally throughout the Pacific Northwest.

### Deciduous Trees

#### Black Locust

**Black Locust** (*Robinia Pseudo Acacia*). A very rapid growing tree, covered in June with sweet-scented, white flowers; valuable as a shade tree and also much esteemed for its hard wood.

#### Birch

**Birch, European White** (*Betula Alba*). A graceful tree, with silvery bark and slender branches. A vigorous grower, with branches rather pendulous. A beautiful tree for either street or lawn.

#### Poplar

**Carolina Poplar** (*Populus Carolinensis*). A vigorous, healthy, native tree of rapid growth, pyramidal in form, with large, glossy leaves; valuable for park or street planting. Makes a fine, spreading head if well cut back the first few seasons. Succeeds well everywhere.

**Canadian Poplar**. Similar to Carolina poplar, growth rapid, more spreading, hardy. Valuable for wind breaks.

#### Catalpa

**Catalpa**. The Catalpa flowers in July, when few trees are in bloom. Blossoms are large, very showy and quite fragrant. Leaves large, heart-shaped and greenish-yellow. A very effective, tropical looking lawn tree. Hardy.

**Catalpa Bungei**. Makes a dense round head of heart-shaped leaves.

#### Elm

**English** (*Ulmus Campestris*). A sturdy, vigorous, upright growing tree. Desirable for streets or parks. Hardy.

**American White** (*Americana*). The noble, spreading, drooping tree of our own woods. One of the grandest and hardiest of park or street trees.





Sycamore or Plane Tree.

### Flowering Crab - *Malus*

**Bechtel's Double Flowering** (*Ioensis bechteli*). Makes a medium sized ornamental tree of great beauty; perfectly hardy; succeeds well in all soils not extremely wet. When in bloom in early spring this tree presents the appearance of being covered with perfectly double small, pink roses, of delicious fragrance. The only sweet-scented double crab, blooms quite young. Unlike many other trees it does not bloom until the leaves are fully developed, which adds greatly to its beauty. Has become popular wherever known.

### Flowering Thorn - *Crataegus*

**Paul's Double Scarlet** (*Monogyna Pauli*). Flowers large, deep carmine scarlet, very showy and slightly perfumed. The thorns justly deserve to be classed among the most beautiful flowering trees. They will thrive in dry soil.

### Horse Chestnut - *Aesculus*

**Red Flowering** (*A. Rubicunda*). Not so rapid or as fine a grower as the White; foliage of deep green and blossoms later with showy red flowers.

**White Flowering** (*Hippocastanum*). A very beautiful well-known tree, with round, dense head, dark green foliage and an abundance of showy flowers in early spring, readily transplanted, hardy, and succeeds well on a variety of soils.

### Koelreuteria

**Koelreuteria** (Varnish Tree). Small ornamental tree, glossy divided foliage, yellow flowers. Fine for single specimens.

### Mountain Ash - *Sorbus*

**European** (*Aucuparia*). A fine, hardy shade and ornamental tree; head dense and regular; covered from July till mid-winter with large clusters of bright red berries.

### Maples - *Acer*

**Ash Leaved, or Box Elder** (*Negundo*). A rapid growing variety with spreading head. Succeeds well in dry soil, where other varieties do not thrive. Well known variety.

**Norway** (*A. Platanoides*). A native of Europe. Its large, compact habit, broad, deep green shining foliage and its vigorous growth, render it a desirable tree.

**Silver or Soft Maple** (*A. Dasycarpum*). This rapid growing tree is being largely planted in many places. It is a clean tree of great beauty, and hardy. One of the best for streets, parks, and lawns.

**Schwedler's Norway Maple** (*Schwedleri*). A beautiful variety, with the young shoots and leaves of a bright purplish or crimson color, which change to purplish green in the older leaves. One of the most valuable.

**Silver Variegated** (*A. Argentea*). This we consider one of the most attractive small ornamental trees grown; so much of the leaf is variegated, that at a short distance it has the appearance of the whole leaf being a silver white. Hardy as the ash-leaved.

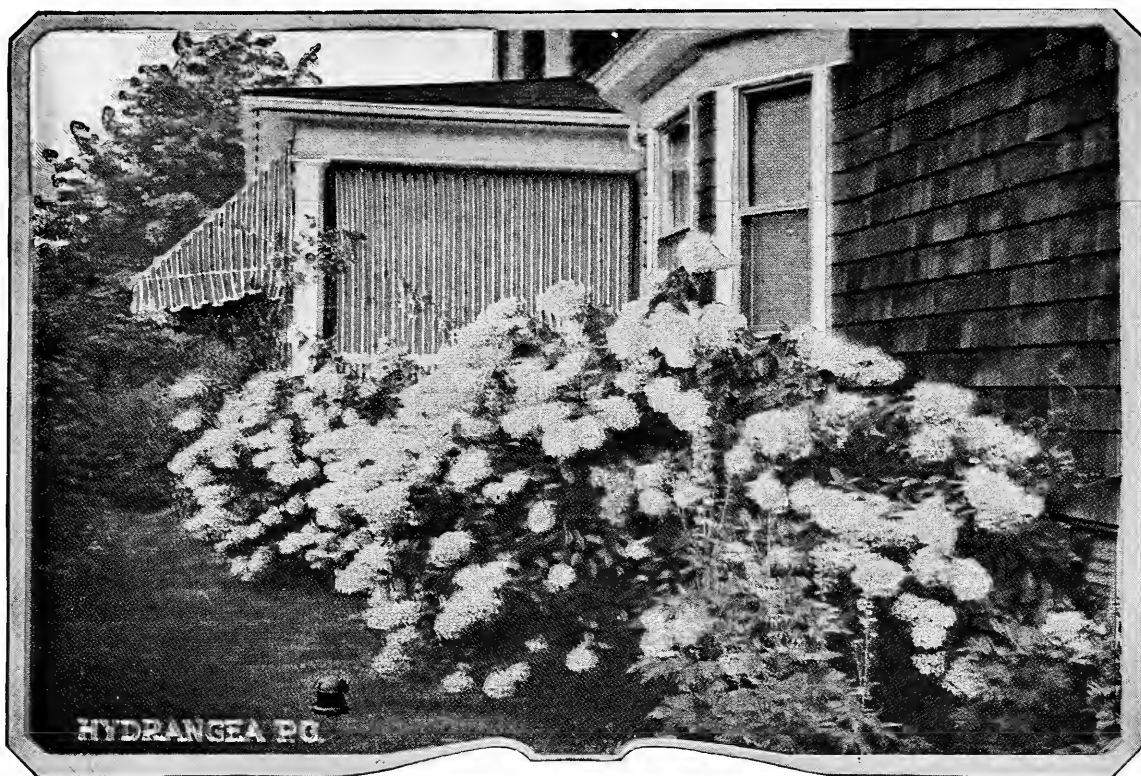
### Sycamore - *Platanus*

**European Plane or Sycamore** (*Platanus Orientalis*). Superb tree of gigantic proportions, dense foliage of bright green leaves, generally five lobed. As shade tree cannot be excelled. General favorite for planting in parks, avenues, and streets; rapid grower.

### Weeping Trees

**Birch, Cut-Leaved Weeping** (*Betula alba laciniata pendula*). Beyond question one of the most popular and elegant of all weeping or pendulous trees. Its tall, slender, yet vigorous growth, graceful drooping habit, silvery white bark and delicate cut foliage, presents a combination of attractive characteristics rarely met with in a single tree.

**Willow, Wisconsin Weeping** (*Salix Babylonica dolorosa*). A beautiful tree with straggling, weeping branches. Makes a fine tree for the lawn or background.



## Hardy Flowering Shrubs

The permanent value and beauty of Deciduous Shrubs was never better understood and appreciated than at the present time. The charm and grace they lend to the home grounds is invaluable, and, if judicious selection is made, it is possible to have a continuous succession of bloom from early in April, when the Forsythia displays its brilliant golden flowers to welcome the returning birds, to the days when the frost again nips the flowers of the very latest to bloom. In our descriptions we endeavor to indicate the height of the bush at maturity, the time of its blooming, in this latitude, and the color of its flowers.

### Althea

**Althea, or Rose of Sharon (Hibiscus).** A showy and beautiful flowering shrub. The

flowers are large size, very double and full of brilliant colors, beginning to bloom the same year it is transplanted and continues to bloom every year from mid-summer until

frost. We have the following selected varieties to offer:

**Admiral Dewey.**  
Semi-double;  
violet blue.

**Elegantissima.**  
Double white,  
shaded with  
rose.

**Rubra pleno.**  
Double red al-  
thea. Clear  
color, one of  
the best.

**Syriacus (Var. flore pleno fol. var.).** Variegated leaved double purple flowered althea. Foliage finely marked with light yellow; double purple flowers. One of the finest variegated leaved shrubs.



**Spirea Van Houttei.** (See page 17.)



A very modest porch planting—this planting consists of twenty-seven shrubs and one evergreen; began to bloom May 7 and continued to flower for a period of eight weeks. This picture was taken the second season after planting.

### Buddleia

**Buddleia** (Butterfly Bush). An upright strong growing bush with long spikes of beautiful lilac-colored flowers. Gets its name of Butterfly Bush because it attracts butterflies in large numbers. Shrub is rather semi-herbaceous. In some latitudes it will die down to the ground, and while perfectly hardy some protection should be given in winter. Heavy cutting back in spring very necessary. Blooms the first season.

### Calycanthus

**Calycanthus** (Butneria). Sweet-scented Shrub. Flowers purple, very double and deliciously fragrant; remains in bloom for a long time; very desirable.

### Deutzias

**D. Crenata**. Flowers double white, tinged with pink; blooms in June. One of the fine hardy shrubs.

**D. Gracilis**. Fine hardy shrub, forming round and compact mass of white in June. Makes pretty hedge.

**Pride of Rochester**. Double variety. A variety raised by Elwanger & Barry and producing large, double white flowers; the back of the petals being tinted slightly with rose. It excels all the older sorts in size of flowers, length of panicle, profuseness of bloom and vigorous habit; blooms earlier than Crenata.

### Elder

**E. Aurca**. Golden yellow foliage; one of the best golden-leaved shrubs.

### Forsythia

**Fortunei, Golden Bell** (Suspensa). Similar to the above in flowers, but of more upright growth, with foliage a darker green.

**F. Intermedia**. Flowers bright golden; foliage glossy green.

**F. Viridissima**. Foliage deep, shining green; flowers bright yellow. A fine hardy shrub and one of the earliest to bloom in the spring.

### Filbert

**Filbert** (Corylus). Purple leaf. A very conspicuous shrub with large, dark purple leaves. Very showy.

### Fringe

**Purple** (Rhus Cotinus). Smoke Tree. Curious, large growing shrub, forming round headed, broad bush. Delicate fringe-like or feathered flowers in summer; very profuse bloomer, leaves bright pea-green. Has appearance of cloud of smoke when in full bloom.

### Honeysuckle Bush - Lonicera

**Tartarica** (Tartarian Honeysuckle). Pink flowers, which contrast beautifully with foliage.

**T. Alba** (White Tartarian Honeysuckle). Forms a high bush, with creamy white fragrant flowers.

**T. Grandiflora** (Red Flowered Honeysuckle). Beautiful shrub, very vigorous and produces large bright red flowers striped with white, in June.

### Hydrangea

**Hydrangea Paniculata Grandiflora**. Generally considered the most valuable and ornamental shrub in existence. Bushy and robust, every branch tipped in mid-summer with an immense close panicle of flat, snow white flowers of gigantic size. The trusses of bloom are eight to ten inches long and are nearly as thick through. Begins blooming in July and lasts until November, flowers turning pinkish toward the last. No other shrub makes such a show on the lawn or is so universally admired. Hardy in any country, and always blooms finely the first summer.

**Hydrangea Arborescens** (Hills of Snow). Foliage green, bluish beneath. Very attractive.

### Kerria - Corchorus

**Kerria Japonica**. Green branched shrub, nicely cut leaves, conspicuous in winter, abundant yellow flowers from June to October.

**K. var. flore pleno**. Handsome double yellow, rose-shaped flowers.



## Lilac

**Purple** (*Syringa Rosea Vulgare*). The common purple species and one of the best.

**White** (*Alba*). Flowers pure white; very fragrant and beautiful.

**Lilac Persica**. More slender growth than common variety, purple flowers in immense spikes.

**Lilac Persica** (*Alba*). Similar to above except in color which is white.

### Budded Varieties

**Alphonso Lavalle**. Double. Blue shaded violet.

**Belle de Nancy**. Double. Very large; color satiny rose, white toward center.

**Charles X**. Strong rapid grower, leaves dark and shiny, trusses large and rather loose, color reddish purple.

**Ludwig Spaeth**. Flowers large, single, dark purplish red; trusses very long.

**President Grevy**. A grand sort. Flowers perfectly double, a beautiful blue. Blossoms measure three-fourths inch in diameter; truss the largest of all, frequently measuring ten inches long. One of the finest.

## Oregon Grape

**Oregon Grape** (*Mahonia Aquifolium*). Bushy shrub, leaves at first fresh green, tinged purple, assuming beautiful red and bronze tints in autumn, which are retained throughout the winter. Yellow flowers in spring.

## Philadelphus - Mock Orange

**Coronarius** (Common Mock Orange). Flowers pure white and very fragrant in May and June in profusion.

## Plum

**Prunus Triloba** (Double Flowering Plum). Vigorous growth; flowers semi-double, delicate pink, upward of an inch in diameter, thickly set on branches in May. Very attractive, choice for specimen planting on lawn.

**P. Pissardi** (Purple Leaved Plum). Vigorous upright growth; foliage maroon red, very handsome from early spring to late fall. Fine for massing or single specimens.

## Quince

**Japan Flowering** (*Cydonia pyrus japonica*). Bright scarlet crimson flowers in great profusion in early spring, and in the fall the bush hangs full of small golden quinces. Perfectly hardy anywhere.

## Snowberry

**Snowberry** (*Symphoricarpos racemosa*). Much valued for its white berries, borne abundantly in autumn. Good for massing.

**Snowberry, Red-fruited**. Fruit red, not so large as the white but more abundant. Graceful habit of growth.

## Evergreen Trees

Evergreens are very desirable, but they are rather difficult to transplant. They should be subjected to as little exposure as possible, set with care and shaded well the first three or four months after transplanting.

### Arbor-vitae - Thuja

**American** (*Occidentalis*). One of the finest evergreens for hedges. It grows rapidly and soon forms the most desirable and ornamental hedge or screen to divide the lawn from other parts of the ground.

**Pyramidal Arbor-vitae** (*T. Occidentalis Pyramidalis*). A compact and narrowly pyramidal tree. Branches short and densely clothed with bright green foliage. Very formal and attractive, and the narrowest and most columnar of the arbor-vitae.

## Snowball

**Snowball** (*Viburnum Sterilis*). A well known shrub; attains a height of eight to ten feet; produces its snow white flowers in large balls in May.

**High Bush Cranberry** (*Viburnum Opulus*). Handsome and dense foliage; flowers white in drooping flat cymes, followed by brilliant scarlet fruit in showy, pendulous bunches that remain on the plant all winter.

## Spireas

**Anthony Waterer**. A new crimson-flowered variety which is in our estimation, one of the best dwarf flowering plants. It makes a low, compact bush two or three feet high and is covered from spring until late in the fall with large heads of deep crimson flowers. Perfectly hardy.

**Opulifolia aurea**. An exceptionally fine variety, not only for its floral display but for the golden foliage. Creamy white flowers produced in clusters all along the stem. Of great beauty.

**Prunifolia**. Very beautiful; its flowers are double and like white daisies. From Japan. Puts forth its white blossoms in May.

**Thunbergii**. Graceful; flowering early in spring, the first to bloom; branches slender and drooping; small bright green leaves, pure white flowers. Dwarf.

**Van Houtte**. It is a beautiful ornament for the lawn at any season, but when in bloom it is a complete fountain of white flowers, the foliage hardly showing. Perfectly hardy.

## Sumac - Rhus

**Glabra laciniata** (Cut-leaved Sumac). Very striking plant of moderate size, with deeply cut leaves, resembling fern leaves, dark green above, glaucous below, and turning to a rich red in autumn.

## Weigela

**Candida**. A vigorous, erect grower; flowers pure white, borne all through the summer months.

**Eva Rathke**. Remarkably free bloomer; flowers very distinct in color, being rich reddish purple, different from other sorts. Excellent.

**Nana foliis variegata**. Variegated leaf, dwarf—clearly defined silver variegated leaves; flowers nearly white. One of the best.

**Rosea**. Flowers of good size, delicately blushed rosy pink; blooms in June and July.

## Evergreen Shrubs

**Yucca Filamentosa** (Adam's Needle, Bear-grass). A hardy, evergreen plant, with long, narrow leaves that are bright green the whole year. The flowers are creamy, bell-shaped, produced in long spikes, three to four feet high. Fine, stately lawn plant, easy to make grow, and does well in any climate.

## Juniper - Juniperus

**Irish** (*Communis hibernica*). Very erect and tapering in its growth, forming a column of deep-blue foliage; a general favorite.

## Spruce - Picea

**Norway** (*Excelsa*). A lofty, elegant tree, of perfect, pyramidal habit, remarkably elegant and rich, and as it gets age, has fine graceful, pendulous branches. It is exceedingly picturesque and beautiful. Very popular and should be largely planted.

# The Rose Garden

Perhaps no flower affords such delightful results as the rose. The Pacific Northwest seems peculiarly adapted to its successful culture, and it responds to the gentle touch of the lowly in humble abodes as well as being a joy in the rich man's rosary. It sends forth its beauty and gentle perfume to be enjoyed alike by the lofty and humble.

## How to Grow Roses

**Location of Beds.** Roses should be planted where they will be open to sunlight for at least half of each day. In locating beds, avoid trees, shrubbery and shady sides of buildings and fences. This will lessen the danger from insects and diseases.

**Soil.** Any good garden soil, which will grow good vegetables, will grow with proper fertilization, fine Roses. The ideal soil is a clay loam of sufficient porosity to permit of ready drainage.

**Preparation of Beds.** The beds should not be so large that the Roses cannot be reached without treading among them. Long, narrow beds, with one continuous row of plants, are preferable. Spade the soil to a good depth, mixing in well-rotted stable manure as you do so. Cow manure is considered the best, though well-rotted horse manure will do. Bone meal is excellent.

**Planting.** Most varieties should be planted about 2½ feet apart, when the soil is in a nice, mellow condition. Spread the roots out well and press the soil down firmly. Plant slightly deeper than previously grown and give one good watering if weather is warm and dry.

**Watering.** Most people water their Roses too much. Once a week is often enough and that early in the morning. Keep the soil mulched or cultivated around the bushes to prevent baking.

**Mulching and Protection.** Only the tenderest varieties need any protection in this country. This can best be supplied by mulching the soil around the plants with a heavy application of cow manure, which should be spaded in the following spring. All plants should have this mulching.

**Pruning.** Field grown dormant Roses should be cut back severely when first set out. Subsequent pruning should be attended to in late winter and early spring, when all dead and weak growth should be removed entirely and the strong, live canes shortened back to one or two feet in length, according to the growth of the previous season. It may be accepted as a general rule that weak growth should be pruned severely and strong ones sparingly. Climbing Roses should not be cut back any more than is necessary to keep the plant in a shapely appearance.

**Best Time for Planting.** No question is asked more frequently than, "when is the best time to plant Roses." Our dormant field-grown Roses can be planted any time that the soil can be worked, between October and April. Probably the best month is March. Most people plant in that month and with best results when the soil has warmed up with the increasing strength of the sun's rays.

## Diseases and Insects

Healthy, vigorous, well-cultivated Roses in well-located beds are less liable to the ravages of insects and diseases than weak specimens of slender growth and poor vitality. Therefore, keep your Roses healthy by good cultivation. It is the indifferent, indolent grower whose Roses are the prey for insects, although the weather in certain seasons aggravates the troubles of a Rose grower considerably.

**Mildew.** This is a fungus disease, shown by the grayish, crinkled and mouldy appearance of the foliage, caused chiefly by cool nights and hot days. Remedy: Dust lightly over the foliage flour of sulphur on a warm, sunny day.

**Black Spot.** Another fungus disease, usually making its appearance on Hybrid and Hybrid Tea Roses late in the season. The black spots on the foliage cause same to turn yellow and drop off. Pick off affected leaves and spray with "Berdeaux Mixture." Spray also when dormant the following spring.

**Aphis or Green Fly.** A little sucking, green insect, which sometimes gathers in countless numbers upon the new growth. Steep tobacco stems or leaves in water over night and apply with a spray pump or whisk broom. Warm soap suds is also effective.

We guarantee a square deal and satisfactory service to every customer.

Hoosier Beauty.  
(See page 21.)



## The Cream of the New Roses

Admirers of Roses are always interested in the Newest Introductions; we therefore have arranged the following, which we have selected as the finest of the European and American introductions. These Roses are two-year-old, grown on own roots in our blocks and are thoroughly acclimated to the Northwest.

### Augustus Hartmann

(B. R. Cant & Sons, 1914). Brilliant geranium-red, flushed with orange, sometimes bright cerise; flowers of large size and beautifully formed. The color is very striking. It obtained the Silver Medal on many occasions as "the best bloom in the show" and the Gold Medal at the Botanical Gardens, 1914.

**Florence Forrester** (McGredy, 1914). Clear snow-white with lemon tinge; as the flowers age they become pure white, the blooms are even larger than Paul Neyron. For size and substance has no equal among Hybrid Teas. It is very sweetly perfumed. Gold Medal, National Rose Society.

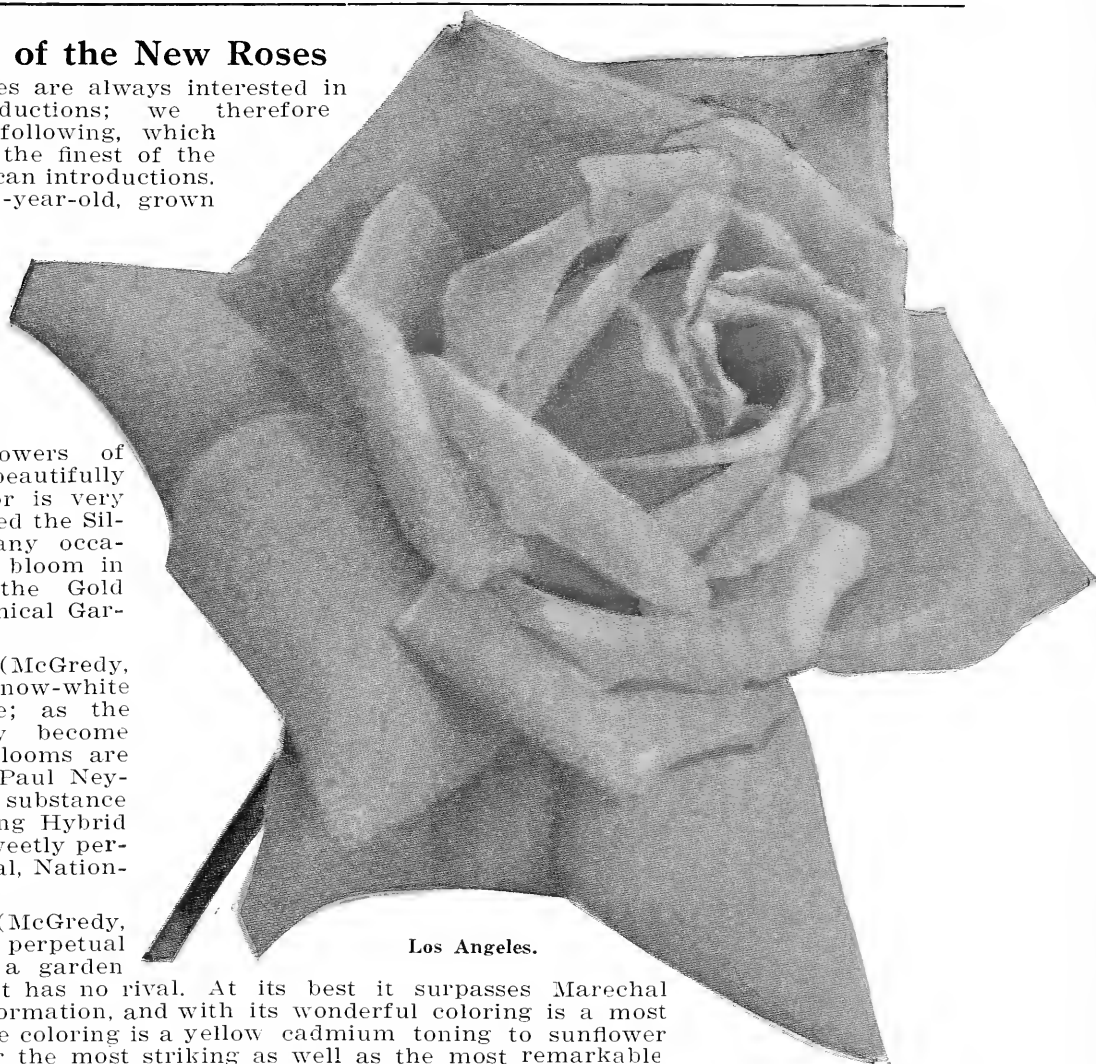
### Golden Emblem

(McGredy, 1917). It is so perpetual flowering that as a garden and bedding rose it has no rival. At its best it surpasses Marechal Niel in shape and formation, and with its wonderful coloring is a most wonderful rose. The coloring is a yellow cadmium toning to sunflower yellow. Altogether the most striking as well as the most remarkable variety among the modern roses. Awarded the Gold Medal of the National Rose Society of England, also the American Rose Society's medal at Philadelphia, April, 1917, for the best rose not yet in commerce.

**Gorgeous** (McGredy, 1915). Strong, vigorous, free branching growth; handsome dark olive-green foliage. Flowers very large and full, exquisitely formed, produced freely and continuously on stout, erect stems. Color deep orange yellow, heavily veined with reddish-copper. A most striking combination of colors. A very fine bedding and an exhibition rose of first magnitude.

**Los Angeles** (Howard and B. Smith, 1917). Originator's description: "Los Angeles is, by all odds, one of the finest roses ever introduced. The growth is very vigorous, and produces a continuous succession of long-stemmed flowers of a luminous flame-pink toned with coral and shaded with translucent gold at the base of the petals. In richness of fragrance it equals in intensity the finest Marechal Niel. The buds are long and pointed and expand into a flower of mammoth proportions, while the beauty of form and ever increasing wealth of color is maintained from the incipient bud until the last petal drops."

**National Emblem** (McGredy, 1915). Color is of a beautiful dark crimson, overlaid velvety crimson and shading to vermilion toward the edges. The buds are very long and pointed and of ivory-like substance. The flowers are quite full, every one coming perfect and are produced with marvelous freedom.



Los Angeles.

**Ophelia** (W. Paul, 1912). Brilliant salmon-flesh shaded with rose on outer edges of petals, with a heart of glowing peach-pink and orange-yellow shadings, all passing finally to lighter shades; fragrant as Richmond, faultless form in bud and flower; erect habit, stiff, long stems; handsome, bright foliage; immune to mildew and black spot.

**Radiance** (Cook, 1909). A brilliant rosy carmine, displaying beautiful rich and opaline tints in the open flower.

**Willowmere** (Pernet-Ducher, 1913). Coral, rich shrimp-pink, shaded yellow in the center, and toning to carmine pink toward the edges of the petals. Vigorous growth, erect and branching habit. Long carmined coral bud, carried on long stems. Very large flower, full and of elongated cup shape.

## Finest Roses of Recent Introduction

We list here, a few of the late introductions which are notable for their distinctiveness and most likely to please the rose-lover who is seeking novelty and variety in his garden and who wishes something newer and better than other sorts afford. Our prices must not be confused with those of some concerns who offer one year plants at low prices, as all of our stock is two-year, field grown on own roots.

**George Dickson** (Alex. Dickson, 1912). Very strong and vigorous, upright growth. Flowers of the largest size; perfect in shape and unique in color, being a velvety blackish crimson, with the back of the petals heavily veined with pure crimson maroon. Delightfully scented.

**Heinrich Munch** (Hinner, 1912). Immense globular flowers; a beautiful silvery-pink color; remarkably fine form, with heavy wax-like petals. Rank growing, producing strong canes of great length, furnished with massive green foliage. Winner of several prizes in European rose shows.

**Mrs. Andrew Carnegie** (Cocker, 1913). This handsome, new rose receives the admiration of all for its beautiful shape and delightful fragrance. Pale lemon-yellow at base of petals, shading to pure white. Gold Medal National Rose Society.

## Favorite Collection of Beautiful Roses

These splendid roses are newer varieties that are becoming more plentiful and can be offered at a very low price. In this list you will find many famous prize-winners and some of the most beautiful and popular roses. All strong, two-year, field-grown, own-root bushes.

**Duchess of Wellington** (Alex. Dickson, 1909). Intense saffron-yellow, stained with deep crimson, deepening with the development of the flower to a coppery-yellow of a distinct new shade. An admirable new rose of great merit.

**Edward Mawley** (S. McGredy, 1911). Velvet-crimson of a deep, rich color on huge petals beautifully arranged to form faultless blooms of wonderful depth, sweetly perfumed and never off color in the hottest weather. Growth handsome, uniform and perfect, holding each bloom rigidly upright. An ideal, free and perpetual flowering garden rose. Awarded Gold Medal National Rose Society.

**George Ahrends.** (See pink Frau Karl Druschki).

**Lady Hillingdon** (Lowe & Shawyer, 1910). Deep apricot yellow, long pointed buds, a fine forcing and garden rose, excellent for cutting. Is considered one of the best decorative roses in its class. Awarded Gold Medal National Rose Society.

**Mrs. Arthur R. Waddell** (Pernet-Ducher, 1908). Long and pointed buds of rosy-scarlet, opening coppery-salmon; large semi-double and extremely showy. Highly colored and free blooming. Foliage dark, glossy green. Extremely popular.

**Sunburst** (Pernet-Ducher, 1912). Orange-copper or golden-orange and golden-yellow, all intense shades, giving an extremely brilliant effect. A giant rose, long stems, long pointed buds, vigorous, free and



**Duchess of Wellington.**

healthy, with splendid keeping qualities as a forcer, also an excellent bedder. Be sure to add this to your collection.

**Mrs. George Shawyer** (Lowe & Shawyer, 1911). Brilliant rose-pink, or bright peach-pink. Flowers large, well formed, with petals of good substance. Very free growth, with leathery foliage, every shoot tipped with a bud. Do not leave this rose out of your collection.

**Pink Frau Karl Druschki or George Ahrends** (Hinner, 1910). The flowers are of large and massive proportions, surmounting stout canes in a most imposing manner. The color is a delightful flesh and bright shade of pink with silvery suffusions. Perfectly hardy in any locality.

## Collection of Fine Everblooming Roses

This includes some of the most popular varieties for garden and cut flowers.

**Maman Cochet** (Cochet, 1892). Rich, rosy-pink, shaded silvery-rose on outer petals; exquisite in color and graceful in form from bud to bloom and delightfully fragrant; beautiful, healthy foliage and long stiff stems.

Unquestionably the queen of pink Tea Roses and a leading cut-flower variety.

**White Maman Cochet** (Cook, 1897). Very large and beautifully formed in bud and bloom; pure white with faint pink flush on edges of petals. Vigorous and produces abundantly for cutting.

## Beautiful Hybrid Tea Everblooming Roses

In this collection will be found some of the choicest of garden roses which have excellent growing and blooming qualities.

**Arthur R. Goodwin** (Pernet-Ducher, 1909). Coppery orange-red, passing to a salmon-pink as the flower expands. A superb combination of coloring which is most striking and attractive. One of the most distinct new sorts and a most valuable addition to our list of fancy roses.

**Augustine Guinoisseau** (See White La France).

**Countess of Gosford** (McGredy, 1906). A new, everblooming rose of English origin; of good robust growth and healthy; flowers of large size, good form and rich fragrance; color is bluish-pink with a shading of yellow at base of petals. Gold Medal at National Rose Society.

**Duchess of Albany** (See Red La France).

**Etoile de France** (Pernet-Ducher, 1904). A brilliant shade of clear red-crimson velvet, centering to vivid cerise; large flowers on long stiff stems; remarkably vigorous, free blooming and hardy. A very desirable bedding variety.

**General McArthur** (Hill, 1905). A grand crimson-scarlet rose. It is very free-blooming, every shoot producing a beautiful and richly-colored bud and flower, which does not fade in the hottest sun. The flowers are large, double, of fine form, and very fragrant. Undoubtedly one of the best garden roses, and no collection is complete without it. Try it.

**Hoosier Beauty**. Fragrant as Richmond, has more petals, a stiffer stem, texture like velvet. Glowing crimson-scarlet color, with darker shadings. Bud good length, opens well. Clean grower, little inclination to spot or mildew. Very popular everywhere.

**Kaiserin Augusta Victoria** (P. Lambert, 1890). This beautiful rose is celebrated the world over for its elegant, large pointed buds and full fragrant flowers. The color is a delicate creamy white, with a faint tinge of lemon in the center.

**Lady Battersca, Red Kaiserin or Red Niphetos** (Paul, 1901). The color, brilliant cherry crimson, is most beautiful and striking; buds long and pointed, flowers well formed; free blooming and vigorous growth. A very desirable garden variety.

**La France** (Guillot, 1867). Pink, tinted silvery blush. Flowers large and borne freely. Delightfully fragrant, excelling nearly all others in this respect. One of the great favorites.

**Madame Abel Chatenay** (Pernet-Ducher, 1895). A rose of extraordinary merit. A free bloomer, with flowers of good size and substance. Color, beautiful rosy carmine, with darker shadings. Very richly colored. One of the finest varieties; should find a place in every rose garden.

**Madame Caroline Testout** (Pernet-Ducher, 1890). A grand rose of the La France type, but with flowers larger and finer. Color, bright satiny pink; very fragrant and free in bloom. One of the handsomest roses and should be planted extensively.

**Perle von Godesburg or Yellow Kaiserin** (Schneider, 1902). Canary-yellow of a rich shade, passing toward white. A sport from and otherwise identical with the white.

**Red Kaiserin Augusta Victoria** (See Lady Battersca).

**Red La France** (W. Paul, 1888). Two shades darker than its parent, the Pink La France, of which it is a duplicate in size, form and habit.

**Red Niphetos** (See Lady Battersca).

**Rhea Reid** (Hill, 1908). The flowers are of fine size and build, double to the center. Color, a rich shade of cerise-crimson. Very free in growth and bloom. Won first honors at Paris in competition with all the choicest new roses of Europe.

**Richmond** (Hill, 1905). Scarlet-crimson of a most brilliant hue; long pointed buds and beautifully striking flowers on tall, erect stems; handsome foliage; a rapid grower and a constant producer.

**White La France or Augustine Guinoisseau** (Guinoisseau, 1889). This magnificent rose is pure white, having just a breath of rose tint blush, decidedly clouding the depth of its broad petals; the buds and flowers are extra large and very full and finely formed.

**Yellow Kaiserin Augusta Victoria** (See Perle von Godesburg).

## Hardy Garden Roses

We have arranged a list of roses of proved merit, of everblooming habit, which are entirely hardy in any locality.

**American Beauty or Madame Ferdinand Jamin** (Ledechaux, 1875). Color rich, rose-crimson, shaded and veined in the most charming manner. Hardy, free bloomer, and very desirable.

**Black Prince** (W. Paul, 1862). Deep, dark crimson, richly shaded, vigorous, richly perfumed. An old favorite.

**Champion of the World** (Woodhouse, 1894). A free blooming rose of great merit; the flowers are large size, color a lovely clear, deep pink. Is constantly in bloom.

**Frau Karl Druschki, White American Beauty or Snow Queen** (P. Lambert, 1901). This giant white rose is without a doubt the most popular variety of the day. Buds of immense size, egg shaped, with heavy waxy petals opening into a mammoth snowy white bloom of great refinement. Hardy as an oak tree. Can be planted anywhere.

**General Jacqueminot** (Roussel, 1852). Large velvety flowers of the most intense maroon-scarlet, each set in a cluster of rich green leaves. Blooms repeatedly through the summer and fall and is one of the most popular roses grown.

**Greetings of Liberty or Virginia R. Cox** (Geschwindt, 1897). Hardy in all sections; grows freely to a height of four to five feet; vivid dazzling, fiery-crimson; sweetly fragrant; produces a mass of gorgeous blooms on long stems. An old favorite.

**Madame Ferdinand Jamin** (See American Beauty).

**Madame Plantier** (Plantier, 1835). This grand variety, when once planted, is as hardy as a hydrangea. Flowers pure white, very large and double. One of the very best white roses.

**Magna Charta** (W. Paul, 1876). A general favorite, prized on account of its strong, upright growing and bright, healthy foliage, as well as for its magnificent bloom. The color is a beautiful bright pink, suffused with carmine.

**Marshall P. Wilder** (Ellwanger, 1884). Color bright cherry-carmine; fragrant, of vigorous growth, with fine foliage. One of the freest of the Hybrid Perpetuals to bloom. Undoubtedly a grand rose.

**Mrs. John Laing** (Bennett, 1887). A beauty in clear, bright shining pink; each bud in its long, serrated calyx with adjacent foliage, forms a dainty and lovely boutonniere, immense, full blooms on long, stiff stems.

**Paul Neyron**. Deep rose; flowers of immense size; claimed by many to be the largest rose grown.

**Prince Camille de Rohan** (E. Verdier, 1861). Universally known as "The Black Rose," owing to its very deep, velvety crimson color, passing to intense maroon, and shaded black; large handsome and fragrant blooms.

**Snow Queen** (See Frau Karl Druschki).

**Ulrich Brunner** (Levet, 1881). This is really a magnificent rose; extra large bold flowers, full and globular; petals large and of good substance; color, rich glowing crimson, elegantly flamed with scarlet; a good grower and fine bloomer.

**Virginia R. Cox** (See Greetings of Liberty).

**White American Beauty** (See Frau Karl Druschki).





**General McArthur.**  
(See page 21.)

## Choice List of Baby Ramblers and Polyanthus

A type of roses which grow only a foot or two high, bear large clusters of flowers possessing great lasting qualities, and are always in bloom. They are fine for massing in beds or for bordering large rose beds or planted singly in lawns. Perfectly hardy.

**Baby Rambler or Madame Norbert Levavasseur** (Levavasseur, 1903). The Crimson Rambler in dwarf form, with the same clear, brilliant, ruby-red color. Hardy and healthy everywhere, attaining a height of twenty inches, and blooming in profuse clusters until frost, and throughout the winter if taken indoors.

**Baby Tausendschoen or Louise Welter** (Welter, 1909). Small cupped blooms of veined rose with feathered edges of soft clear pink. A lovely little novelty, each bush forming a symmetrical bouquet.

**George Elger** (Turbat & Co., 1913). A lovely little Polyantha Rose with a good admixture of Tea blood. It is free in growth and bloom. The dainty little pointed, yellow buds open into little symmetrical roses.

**Louise Welter** (See Baby Tausendschoen).

**Madame Norbert Levavasseur** (See Baby Rambler).

**Mlle. Cecile Brunner, Mignon or Sweetheart** (Ducher, 1880). Salmon-pink. The clustered flowers are small, daintily formed and exquisitely colored. The little buds are especially beautiful. Blooms constantly. A truly charming rose.

**Mignon** (See Mlle. Cecile Brunner).

**Orleans** (Lavavasseur, 1914). This is the showiest and prettiest of all the Baby Ramblers. When in bloom this rose presents the appearance of a huge bouquet of deep cerise or Geranium-pink with distinct showy center of pure white; the color is irresistible. The plant is a very rapid grower and flowers outlast almost any other rose in existence. Awarded Gold Medal.

**Perle d'Or** (Guillot, 1883). Although not new this little rose is very novel and beautiful with nankeen-yellow and orange centers. It

is similar to Mlle. Cecile Brunner but is unsurpassed by that very popular rose. **Sweetheart** (See Mlle. Cecile Brunner).

## Moss Roses

Among the hardiest, vigorous growing shrubs. Flowers produced on wood two years old or more, so should be pruned sparingly.

## Hardy Climbing and Pillar Roses

Strong, robust growers, bearing large clusters of fragrant flowers. Their rambling habit of growth make them useful for covering arbors, porches, etc. Perfectly hardy.

**Aglia.** (See Yellow Rambler).

**American Pillar** (Conard, 1909). A single flowering variety of great beauty. The flowers are of enormous size, sometimes three to four inches across, of a lovely shade of apple-blossom pink, with a clear white eye and cluster of yellow stamens. It forms a beautiful decorative subject throughout the autumn.

**Apple Blossom** (See Empress of China).

**Climbing Baby Rambler or Miss G. Messman** (Messman, 1911). A true everblooming Crimson Rambler, a climbing sport from the original Crimson Baby Rambler. The combination of color and habit make this a most desirable rose.

**Crimson Rambler** (Turner, 1893). The most popular climber of today; a rapid producer of long heavy canes, reaching a height of ten to twenty feet in one season; rich clusters of bloom form a mass of vivid crimson beauty until late in the season. Perfectly hardy.

**Dorothy Perkins** (Perkins, 1902). Beautiful shell-pink color, which holds for a long time, fading finally to a lovely deep rose; very sweet-scented; fully equal to Crimson Rambler in foliage, hardiness, habit of growth and blooming qualities.

**Empress of China or Apple Blossom** (Jackson, 1896). A very beautiful climber. It commences to bloom the last of May, and if properly cared for, will bloom until late in the fall. Flowers are beautiful red, but soon turn to lovely pink. Perfectly hardy.

**Euphrosyne** (See Pink Rambler).

**Excelsa** (See Red Dorothy Perkins).

**Flower of Fairfield** (Loudorf, 1908). A counterpart of Crimson Rambler in every respect, except it shows ever-blooming tendencies, many new growths being terminated with a cluster of flowers. It is frequently called the Everblooming Crimson Rambler.

**Greville** (See Seven Sisters).

**Miss G. Messman** (See Climbing Baby Rambler).

**Philadelphia Rambler** (Conard, 1902). Deep, rich crimson, brighter and more intense than the Crimson Rambler, with larger, fuller and more lasting flowers in panicles; extremely vigorous and productive; one of the hardiest and free from mildew.

**Pink Rambler or Euphrosyne** (Schmidt, 1895). A vigorous climber, producing large trusses of delightfully fragrant flowers of deep pink.

**Red Dorothy Perkins** (Walsh, 1909). Intense crimson-scarlet; double flowers in brilliant clusters set in glossy, shining foliage which never mildews nor spots. Extremely vigorous and the handsomest of all red roses.



**Seven Sisters or Greville** (America, 1900). Flowers in large clusters of seven or more, varying from rosy-red to blush-white, several shades being frequently found in the same cluster. An old favorite.

**Shower of Gold** (Paul, 1910). Deep, golden-yellow and orange flowers borne in splendid trusses forming a mass of bloom. Extremely long laterals and densely clad with a beautiful foliage, the leaves on upper side a vivid, glossy green, the under side and stems a reddish-brown.

**Tausendschoen or Thousand Beauties** (Schwartz, 1906). Varying shades from a delicately flushed white to a deep pink or

rosy-carmine, in bright clusters of blossoms almost covering the handsome green foliage. A vigorous hardy climber with few thorns; of German origin.

**Thalia** (See White Rambler).

**White Rambler** (Lambert, 1896). In habit of growth, foliage, manner of blooming and shape of flowers, this is identical with Crimson Rambler, differing only in color, which is pure, clear white.

**Yellow Rambler or Aglaia** (Schmidt, 1895). Rapid grower; color a clear, decided yellow, changing to a beautiful cream. Blooms in clusters same as Crimson Rambler. Very hardy.

## Peonies

The wonderful improvement made during recent years in these old fashioned hardy plants has brought them into renewed popularity. The gorgeous flowers which rival the finest roses in size, form and color are produced in great abundance. After once being planted they require little care and attention, thrive anywhere and are absolutely hardy even in the coldest climates; each year after planting they grow into greater value, producing more and more flowers. They are not troubled with insect pests. Try some of our peonies and see what grand flowers they are.

**Time to Plant.** The best time to plant the roots is in the **fall** when the plants have matured and are dormant. If planted in the fall and given proper care, they will bloom the first year planted.

**Size of Roots.** The roots we offer are divisions having from three to five eyes. Those desiring heavier roots, please write for special prices.

**Albatre** (Crousse, 1885). Very large, very double, rose type. Ivory white, central petals margined with carmine. Fragrant. Strong, vigorous tall grower, very free bloomer. Mid-season. One of the grandest white peonies.

**Asa Gray** (Crousse, 1886). Large, pale lilac bloom, sprinkled with lilac dots. Free bloomer. Fragrant. Very distinct and beautiful.

**Boule de Neige** (Calot, 1862). Very large, medium globular, compact, semi-rose type. Milk white, guards and center prominently flecked crimson. Tall, erect, free bloomer. For cut bloom extra good. A choice early midseason variety.

**Charlemagne** (Crousse, 1880). Very compact, large, globular, lilac white, rose type with a slight blush center. Odor pleasant. Late, free bloomer, good variety.

**Claire Dubois** (Crousse, 1886). Very large, globular, rose type. Uniform color, delicate satiny pink, tipped silvery white. Erect, tall, strong grower. Late. One of the finest pink peonies we have.

**Couronne d'Or** (Calot, 1873). Large, flat, semi-rose type. Pure white, with a ring of yellow stamens around a tuft of center petals, tipped carmine. Solidly and per-

fectly built from edge to center. Fragrant. A good grower and reliable late bloomer. Keeps well when cut for bloom. One of the very choicest and best peonies in cultivation.

**Dorchester** (Richardson, 1870). Large, compact, rose type. Hydrangea pink. Odor pleasant. Medium dwarf. Upright, free bloomer. Late. Extra good.

**Duke of Wellington** (Calot, 1859). Very large, well formed, sulphur-white bloom. Habit ideal. Stems very firm and long. A strong grower and free bloomer. Very fragrant. Good late cut bloom. Very beautiful variety.

**Duchess De Nemours** (Calot, 1856). Very fine cup shaped bloom; guard petals pure white, sulphur-white center with greenish reflex. Very fine bud; fragrant. Good grower and free bloomer. An early white peony of great beauty.

**Duchess d'Orleans** (Guerin, 1846). Very pretty, deep pink, with violaceous tints on center petals interspersed with salmon. Fragrant. A good, midseason, cut flower variety.

**Edulis Superba** (Lemoine, 1824). Large, loose, flat crown type. A most beautiful bright clear mauve-pink with silvery reflex. Very fragrant. One of the very best commercial pinks for Decoration Day.



A Beautiful Border Planting of Peonies.



**Monsieur Jules Elie.**

- Eugene Verdier** (Calot, 1864). Very large, compact, typical rose bloom. Color, hydrangea pink with outer guard petals lilac-white. Odor pleasant. Extra strong, vigorous growing plant, rather dwarf habit, extra strong stems, free bloomer. Good cut flower peony. One of the best late varieties of perfect habit. Extra.
- Felix Crousse** (Crousse, 1881). Large, globular, typical bomb type. Brilliant red. Fragrant. Strong, vigorous grower, medium late. Good cut flower variety. Both color and size are startling. We place Felix Crousse in the front rank of all the red peonies.
- Festiva Maxima** (Mieliez, 1851). Enormous, globular, rose type bloom; often 7 to 9 inches in diameter, on strong, extra long stems. Pure white, center prominently flecked bright crimson. Free, early bloomer and very fragrant. The most popular white variety for cut flowers.
- General Bertrand** (Guerin, 1845). Large, compact, globular, typical bomb. Uniform solferino-red, center slightly tipped silver. Tall, strong, upright grower. Very fragrant, early, handsome variety of bright color.
- General Dodds** (Crousse, 1893). Very large, globular, compact, semi-rose type. Uniform dark tyrian rose, guards splashed green, a few white petals in center. Tall, strong grower, free bloomer. Late. Extra.
- Golden Harvest** (Rosenfield, 1900). Large size, loose, bomb or informal rose type. Guards pale lilac-rose, center creamy white, developing many wide petals of a peach-blossom pink. Odor pleasant. Dwarf habit, very free bloomer. Midseason. A most beautiful variety.
- L'Eclatante** (Calot, 1860). Bomb type, mid-season. Flowers very double and full; colors, deep brilliant, velvety-crimson. Extra good cut flower variety.
- Livingstone** (Crousse, 1879). Rose type; late. Very full imbricated bloom; both buds and flowers are large and beautiful. Color pale lilac-rose with sheen of silver; very free, sure bloomer in clusters; upright, erect grower; fine cut flower variety. One of the prize winners.
- L'Indispensable**. A variety of unknown French origin. Very large full bloom of a delicate shell-pink. Tall, strong grower; midseason. A fine sort.
- Madame Calot** (Mieliez, 1856). Large, pale hydrangea pink; rose type, center shaded slightly darker with a sulphur tint in collar. Very fragrant. Medium tall, strong grower, free, sure bloomer. One of the desirable peonies. Early.
- Madame de Verneville** (Crousse, 1885). Large, very full, bomb type. Broad, guard petals pure white; center delicate rosy white tinted sulphur, fading to pure white, with carmine tipped central petals. Fragrant. Extra free bloomer. A very early white variety of great beauty.
- Mademoiselle Leonie Calot** (Calot, 1861). Very full, rose type bloom, perfect in form. Color a delicate rose-white with soft lilac-pink center, tinted with salmon. A tall grower, and blooms so freely that its delicate colored blossoms hide the plant. Medium to late. A charming variety.
- Marie Lemoine** (Calot, 1869). Massive, very compact, rose type blooms with a rather flat center; white with cream white center with an occasional carmine line on central petals. Fragrant; of strong vigorous growth, medium height, with extra good stem; blooms freely and very late. A good landscape variety, good cut flower and grand in every way. Always admired. As indispensable as Festiva Maxima.
- Marie Stuart** (Calot, 1856). Crown type; mid-season. Flesh-pink fading to white at base of petals. Tall grower, free bloomer, with a pleasing fragrance. Extra fine.
- Monsieur Jules Elie** (Crousse, 1888). Bomb type, early midseason. Immense, globular, very full flowers. Color an ideal glossy lilac-pink, shading to deeper rose at the base, the entire bloom overlaid with a sheen of silver that fairly shimmers in the sunlight. Very fragrant. A good keeper, thus a good cut flower. An unapproachable variety from any standpoint.
- Queen Victoria** (Whiteley). Bomb type; early midseason. The very best every-day white. For cut flowers a good keeper; a very free bloomer. Flowers of good substance and color, guard petals white with faint blush, with creamy center. Fragrant. An old standby.
- Rubra Triumphans** (Delache, 1854). Type of bloom semi-double, globular, loose. Color dark, satiny crimson. The foliage is also very dark, with reddish stalks, presenting, especially in the early season, a pleasing contrast when planted with a light green foliage sort like Marie Lemoine. Early midseason. Fragrant.
- Thyrne**. Light pink, center sulphur, changing to nearly white; strong grower and free bloomer. Midseason. Fragrant.

## Early May Flowering Peonies

These varieties bloom from two to three weeks earlier than the *Chinensis* section. Always in bloom during the month of May. The peonies of our mothers' gardens.

**Officinalis Alba** (Syn. *Mutabilis*). Pretty bud; large, full bloom; glossy, soft pink, shaded chamois, changing to pure white.

**Officinalis Rosea**. Full double bloom, soft rose. Some claim this to have the prettiest pink shade of all the peonies.

**Officinalis Rubra**. Large globular bloom; brilliant crimson. This is the early-flowering red peony so common to the old-time gardens, much used on Memorial Day, when the Chinese peonies bloom too late.

# Hardy Ornamental Climbing Vines

## Ampelopsis

**American Ivy, or Virginia Creeper** (*Quinquefolia*). A native vine of hardy, rapid growth, with large, luxuriant foliage, which in autumn takes on the most gorgeous coloring. One of the finest vines for covering walls, verandas, etc.

**Ampelopsis** (English Ivy). Leaves a dark, shiny green. Used in England for covering old trees. Close growing variety.

**Boston or Japanese Ivy** (*Veitchii*). Leaves a little smaller and more ivy-like in form than the foregoing. The plant requires some protection until it is established.

## Clematis

Clematis plants of the improved sorts are exceedingly hardy and produce beautiful large flowers in great abundance during a long period. They do best in a rich soil, in a sunny situation. The young shoots that spring up after transplanting sometimes die down, but if the root is left in the ground undisturbed, it will most always send forth strong shoots early the following spring, which will bear handsome blossoms the same season.

**Henryi**. Fine bloomer, flowers large, of a bright, beautiful creamy white, consisting generally of from six to eight sepals; it is not only a vigorous grower but a remarkably free and continuous bloomer.

**Jackmanni**. The flowers, when fully expanded, are from four to six inches in diameter; intense violet-purple, with a rich velvety appearance, distinctly veined; flowers continually from July to October.

**Madam Edouard Andre**. This is the nearest approach to a bright red Clematis and has been called the crimson Jackmanni. The plant is a strong, vigorous grower, and very free in bloom.

**Paniculata** (New, Sweet-Scented Japan Clematis). No introduction of recent years has met with such ready sale and given such satisfaction wherever planted. It grows and thrives anywhere and is a very rapid grower and profuse bloomer. Flowers are pure white, borne in large clusters, converting the



*Ampelopsis Veitchii*—Boston Ivy.

plant into a perfect mass of white. Its extreme hardiness, bright green foliage and delightfully fragrant flowers serve to make this one of the finest hardy climbing plants in cultivation.

## Honeysuckle - *Lonicera*

**Belgica** (Monthly fragrant, or Dutch Honeysuckle). Blooms all summer; red and yellow flowers, very fragrant.

**Halleana**. A new, hardy variety from Japan, and has proved to be one of the best Honeysuckles grown. Blooms from June to November. It is almost evergreen and one of the most fragrant. White, changing to yellow.

**Red Coral** (*Sempervirens*). A hardy, rapid grower; flowers are red and fragrant.

## Trumpet Flower - *Tecoma*

**Radicans**. A hardy, rapid growing climber, with large, scarlet, trumpet-shaped flowers. Blooms almost continuously throughout the summer season.

## Wistaria

**Chinese Purple** (*Sinensis*). Most beautiful climber; of rapid growth, producing fine large clusters of lovely blue in great masses. It is very hardy, and one of the most superb vines ever introduced.

**Chinese White** (*Sinensis Alba*). Flowers borne in long, drooping clusters as in the purple variety; pure white in color, making a striking and elegant contrast.



*Clematis Paniculata*.



Chinese Wistaria.



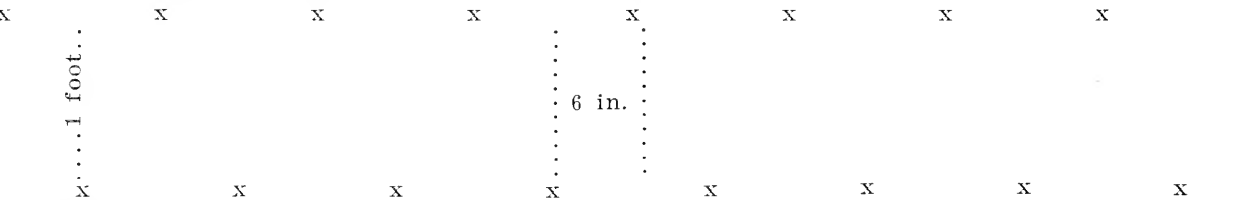
# Ornamental Hedges

Nothing could be more beautiful than a neatly trimmed hedge, and they are useful for boundary fences, screens, etc. We give below some of the best varieties for ornamental hedges, screens, wind break or boundaries.

In starting a hedge, to secure the best results, the plants should be set in two rows, a foot between the rows, and plants set alternate, a foot apart in the row, which will make a plant every six inches in length of the hedge. Thus a hundred feet will require two hundred plants.

Good results may be obtained by planting in single rows but more time will be required to get a thick hedge.

Pruning should commence as soon as limbs get large enough to form required size of hedge. Frequent pruning will cause hedge to thicken up and become compact.



**Privet, English, hardy.** These grand shrubs are extensively used for hedges and screens and occasionally given space in the shrub plantations for the beauty of their flowers and berries. They are hardy and vigorous, thriving in almost any fertile soil and stand clipping admirably.

clinging through most of the winter; leaves turn to scarlet and gold in autumn. Very choice for hedging.

**American Arbor-Vitae** (See page 25).

**Barberry (Thunbergii).** Very neat and dense in growth, graceful, drooping branches. Yellow flowers, followed by scarlet fruit, borne in dense profusion on long stems, and



Privet Hedge.



## Hardy Perennials

Under this head is included those hardy plants, the foliage of which dies to the ground each winter. Every spring a new and stronger growth may be expected. These plants are adapted to most soils, responding readily to thorough cultivation and occasional enrichings. The old tops should be cut down after the foliage has matured. We offer a few of the more common and hardy kinds.

### Hardy Perennial Phlox

This is one of the most easily grown, hardy perennials. Their noble flowers are most beautiful during the summer and autumn months.

**Beauty.** Delicate silver pink.

**Gen. Von Heutsze.** Salmon pink, red eye.

**Independence.** Pure white; good.

**Niobe.** A rich velvety purple.

**Pantheon.** Bright pink, with faint halo.

**R. P. Struthers.** Cherry red, deep red eye.

### Best Hardy Phlox

This list is made up of newer varieties and some that are very rare. Extra strong plants that will bloom the first season.

**Baron von Dedem.** Brilliant, scarlet red.

**Bridesmaid.** White, with crimson center.

**Elizabeth Campbell.** Light salmon, with dark center.

**Embracement.** Brilliant orange.

**Henry Murger.** White, deep rose center.

**Mme. Bezanson.** Best crimson.

**Obergartner Wittig.** Bright magenta, carmine eye.

**Rhynstrom.** Pink, like Paul Neyron rose.

**Sir Ed Landseer.** Crimson scarlet, with red center.

**Widar.** Light reddish violet, white center.

**ALASKA DAISY.** White, blooms freely all summer; hardy. Should be divided frequently. Large blooms; fine for decorating.

**GOLDEN GLOW** (*Rudbeckia laciniata*). Strong robust grower, attaining height of five or six feet, producing masses of double, golden-yellow, dahlia-like flowers from July to September. Hardy everywhere.

**HOLLYHOCKS.** New double four colors.



Hardy Phlox.

### Liberty Iris

The Irises are very popular and easily grown, ranging through yellow, blue, purple, white and mahogany colors. A dry sunny location with a moderately rich soil suits them best. Perfectly hardy. There is nothing prettier than this Liberty Iris, blooming in the late spring and early summer months. The large plants we send our customers will bloom the first season planted.

**Florentine.** Creamy white, faintly flushed lavender.

**Honorabilis.** Golden-yellow, falls mahogany brown.

**Madam Chereau.** White, with border of clear blue.

**Purple Prince.** Violet blue, falls dark purple.

**Pallida Dahmatica.** Delicate lavender, falls deep lavender.

**Queen of May.** Rose lilac.

**DAY LILY** (*Hemerocallis*). One of the hardest and easiest grown of the herbaceous perennials. Narrow, grass-like foliage, yellow flowers in early summer. Roots fleshy tubers and should be divided occasionally.



Liberty Iris.

# How to Obtain Success in Spraying

Success in spraying is to be secured only by careful attention to details in two principal directions: (1) Spraying must be timely, and the proper time varies with the particular conditions. The operator should know what disease or diseases he is expecting to prevent by the application of the spray, and should thoroughly post himself beforehand as to the correct times and intervals for spraying for that particular disease. The spray must be applied ahead of the infection period of the fungi. (2) The spraying should be thoroughly done. In dormant spraying a coarser spray can be used than in summer spraying, because the object is merely to form a complete coating of the spray over the wood. In summer spraying, however, an exceedingly fine, mist-like spray, reaching every portion of the plant and covering with minute dots, preferably no larger than a flyspeck, every square inch of the fruit and foliage is necessary. It is not necessary that the minute specks of the spray should entirely coalesce into a coating, although where a second or third treatment is made this often results. But there should be no spaces the size of one's thumb nail not thoroughly peppered with the spray.

## Directions How to Spray

### FALL SPRAY

**Just After Leaves Fall.** Use sulphur-lime 3 degrees Beaufort for apple canker, scale insects, eggs of green aphid, red spider, pear leaf blister mite, woolly aphid, tent caterpillar, moss and lichens.

### WINTER SPRAY

**While Buds are Dormant.** Use sulphur-lime 3 degrees Beaufort for bud moth, twig borer, peach leaf curl, scale insects, eggs of green aphid, red spider, pear leaf blister mite, woolly aphid, mildew.

### SPRING SPRAY

(1) **When Flower Buds are Just Ready to Open.** Use sulphur-lime for apple scab, canker, brown rot, fruit mold.

(2) **While Last Blossoms are Falling.** Use lead arsenate, 1 lb. to 50 gallons of water for codling moth. Apply with a bordeaux nozzle, with force, directly into flower. Repeat immediately. Keep a few trees banded. If many worms are trapped, spray.

### SUMMER SPRAY

**When Pest Appears.** Use tobacco or kerosene emulsion for aphid, woolly aphid on branches, red spider, oyster shell bark louse. Use lead arsenate for pear and cherry leaf slug, 1 lb. to 75 gallons of water, or dust with lime or road dust. For caterpillars use 1 lb. to 40 gallons of water. Use sulphur lime 1.5 degrees Beaufort for fruit spot, mildew or red spider.

### BORDEAUX

Bluestone ..... 6 pounds  
Good Lime ..... 4 pounds  
Water ..... 50 gallons

Dissolve the bluestone by suspending it in a sack in 25 gallons of water in a barrel. Slake the lime in another vessel, adding a little water slowly, and dilute to 25 gallons. Mix the two thoroughly. Even the best bordeaux may scorch in rainy weather.

For double strength bordeaux use twice as much bluestone and lime.

### KEROSENE EMULSION

Kerosene ..... 2 gallons  
Whale oil soap ..... ½ pound  
Water ..... 1 gallon

Dissolve the soap in the water by boiling, and add the suds boiling hot to the kerosene, away from the fire. The mixture is then to be agitated violently, preferably by pumping it back on itself with a force pump. After four or five minutes the mixture suddenly becomes creamy in consistency. If well made, the

cream will stand for a long time without free oil rising to the surface. Unless otherwise stated, use 1 gallon of the emulsion to 12 gallons of water in spraying. One quart soft soap or 1 pound laundry soap may be used instead of the whale-oil soap.

### "BLACK LEAF 40"

Use for black and green aphid, woolly aphid. One ounce of concentrated solution of "Black Leaf 40" to six and one-fourth gallons of water. Add common soap until water is quite soapy. This makes the solution spread and adhere to the insects. Spray under heavy pressure for best results, or dipping may be resorted to with good results if done a few times.

### SULPHUR-LIME

Sulphur ..... 1 pound  
Fresh stone lime ..... ½ pound  
Water ..... ½ gallon

Slake the lime in the cooker. Add the sulphur and the water. Boil briskly till the sulphur is dissolved (about 45 minutes), stirring continuously and keeping the cooker covered. As it boils down keep adding water. When finished let settle. Use only the clear liquid, which may be stored if kept from the air. Prepared in this way sulphur-lime should have a hydrometer reading of about 26 degrees, a little weaker than the factory made product.

For use, any concentrated sulphur-lime may be diluted according to the following table:

Hydrometer Test of Concentrate		To Make Dilute Spray	
Beaufort Degrees	Specific Gravity	Beaufort 3° Sp. gr. 1.02 1 lb. Sulphur in 5 gal.	Beaufort 1.5° Sp. gr. 1.01 1 lb. Sulphur in 5 gal.
34	1.302	1 to 14 water	1 to 28
32	1.279	13	26
30	1.259	12	24
28	1.236	11	22
26	1.215	10	20
24	1.196	9	18
20	1.158	7	14
16	1.122	6	11

### ARSENATE OF LEAD

Arsenate of lead (poison)...1 pound  
Water ..... 50 gallons

For newly hatched insects it is not necessary to use it stronger. Mix well first with a small amount of water. Powdered arsenate of lead is about twice as strong as the paste. Do not use arsenate that settles quickly.





## I N D E X

Acacia .....	13	Fringe .....	16	Platanus .....	14
Acer .....	14	Fruit .....	2-12	Plum, Flowering .....	17
Adam's Needle .....	17			Plums .....	7
Aesculus .....	14	Golden Bell .....	16	Poplar .....	13
Alaska Daisy .....	27	Golden Glow .....	27	Populus .....	13
Almonds .....	9	Gooseberries .....	12	Privet .....	26
Althea .....	15	Grapes .....	10	Prunes .....	7
Ampelopsis .....	25			Prunus .....	17
Apples .....	3-5	Hedges .....	26		
Apricots .....	9	Hemerocallis .....	27	Quinces .....	9
Arbor-vitae .....	17	High Bush Cranberry .....	17	Quince, Japan .....	17
Ash, Mountain .....	14	Hollyhocks .....	27		
Asparagus .....	12	Honeysuckle, Bush .....	16	Raspberries .....	11
		Honeysuckle, Vine .....	25	Rhubarb .....	12
Barberry .....	26	Horse Chestnut .....	14	Rhus .....	17
Betula .....	13, 14	Horseradish .....	12	Robinia .....	13
Birch .....	13	Hydrangea .....	16	Roses .....	18-23
Birch, Weeping .....	14			Rudbeckia .....	27
Blackberries .....	12	Iris .....	27		
Black Locust .....	13	Ivy .....	25	Salix .....	14
Boston Ivy .....	25			Shrubs, Deciduous .....	15-17
Box Elder .....	14	Juniper .....	17	Snowball .....	17
Buddleia .....	16	Juniperus .....	17	Snowberry .....	17
Butterfly Bush .....	16			Sorbus .....	14
Butternut .....	9	Kerria .....	16	Spireas .....	17
		Koelreuteria .....	14	Spruce .....	17
Calycanthus .....	16			Strawberries .....	11-12
Catalpa .....	13	Lilac .....	17	Sumac .....	17
Cherries .....	6	Lily, Day .....	27	Sycamore .....	14
Chestnut, Horse .....	14	Locust, Black .....	13	Symphoricarpos .....	17
Chestnuts .....	9	Lonicera .....	16, 25	Syringa .....	17
Clematis .....	25				
Corchorus .....	16	Mahonia .....	17	Tecoma .....	25
Corylus .....	16	Malus .....	14	Thorn, Flowering .....	14
Crab, Flowering .....	14	Maple .....	14	Thuya .....	17
Crab Apples .....	5	Mock Orange .....	17	Trees, Deciduous .....	13-14
Crataegus .....	14	Mountain Ash .....	14	Trumpet Flower .....	25
Currants .....	11	Mulberries .....	12		
Cydonia .....	17			Ulmus .....	13
		Nectarines .....	9		
Daisy, Alaska .....	27	Nut Trees .....	9	Varnish Tree .....	14
Day Lily .....	27			Viburnum .....	17
Deutzias .....	16	Oregon Grape .....	17	Vines .....	25
Dewberry .....	12			Virginia Creeper .....	25
		Peaches .....	8		
Elder .....	16	Pears .....	5	Walnuts .....	9
Elm .....	13	Peonies .....	23-24	Weeping Trees .....	14
Evergreens .....	17	Perennials .....	27	Weigela .....	17
		Philadelphus .....	17	Willow, Weeping .....	14
Filbert .....	16	Phlox .....	27	Wistaria .....	25
Forsythia .....	16	Picea .....	17		
		Pie Plant .....	12	Yucca .....	17

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